

THE EFFECTS OF A MANUALISED DISABILITY AWARENESS TRAINING
PROGRAMME ON THE ATTITUDES AND EMPATHY OF YEAR 8 SCHOOL
STUDENTS: A PRE-POST TEST DESIGN

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List of Abbreviations

ANCOVA	Analysis of Covariance
CAIPE-R	Children's Attitudes Towards Inclusion in Physical Education
CATCH	Chedoke McMaster's Attitudes Toward Children with Handicaps Scale
CEAQ	Children's Empathic Attitudes Questionnaire
CRPD	Convention on the Rights of Persons with Disabilities
d	Effect Size
M	Mean
MOH	Ministry of Health
NGO	Non-Governmental Organisation
NZ	New Zealand
OCD	Obsessive-Compulsive Disorder
PE	Physical Education
r	Correlation coefficient
SD	Standard Deviation
SE	Standard Error
STROBE	Strengthening the Reporting of Observational Studies in Epidemiology
T0	Time 0 (Baseline)
T1	Time 1 (Post-test)
T2	Time 2 (Follow-up)
UK	United Kingdom

UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Conflict of Interest

Funding was received by the researcher from CCS Disability Action, Canterbury West Coast to conduct this project. In carrying out this study, the researcher has strived to ensure that the receipt of sponsorship has not influenced the interpretation of results and as a consequence, the research outlined in this thesis is as objective as possible.

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“It always seems impossible until it’s done.”

Nelson Mandela

Abstract

A truly inclusive society embraces human diversity. Negative attitudes represent a barrier to full social inclusion and the equal rights and participation of minority groups, including people with disabilities. Children with disabilities are particularly vulnerable to negative peer attitudes, which may result in them feeling excluded and alienated in the school environment. Research has linked empathy to pro-social behaviour, and has suggested it as a mediator between direct intergroup contact and positive attitude outcomes. Within a geographically localised, general intermediate (years 7 and 8) school setting, this study aimed to evaluate the effects of a manualised disability awareness programme on children's empathy and attitudes towards peers with disabilities. Participants were New Zealand students aged 11-13 years from four classes within two Christchurch intermediate schools, and comprised an intervention group ($n = 89$) and waitlist control group ($n = 30$). Self-report measures were employed, in a pre-post design with nine week follow up. The intervention incorporated multiple components including direct contact with an adult with a disability as programme facilitator. Results showed no significant difference in children's empathy and attitudes at baseline or post-test between intervention groups. Significant attitude improvement was evident for a sub-group of high academic achievers. A significant moderate correlation was also demonstrated between attitude and empathy. Possible causes for a lack of overall effect were discussed, as well as implications for future programme implementation. Future research should continue to explore the programme elements of manualised disability awareness interventions to determine best practice in relation to improving attitudes towards peers with disabilities and promoting full social inclusion. Further investigation into the relationship between children's empathy and attitudes is also recommended.

Chapter 1: Introduction

This chapter provides an overview to the research in terms of disability, and who is affected. It outlines negative attitudes as a barrier to inclusion, and the experiences of children with disabilities as a consequence. The concept of attitude is examined more closely, together with the developmental progression of attitudes in children. Theoretical frameworks within which attitudes may be changed are then discussed. The final section sums up the importance of positive attitudes towards peers with disabilities, and focuses attention on an educational approach to assist in the process of achieving full social inclusion.

Background

People with disabilities are often the target of negative attitudes (MacMillan, Tarrant, Abraham, & Morris, 2014), which lead to them experiencing negative treatment (World Health Organization [WHO], 2011). Attitudinal research shows that individuals hesitate to engage in close personal relationships or even socialize with people who have disabilities (Goreczny, Bender, Caruso, & Feinstein, 2011). As an environmental barrier, negative attitudes can result in reduced participation and the marginalisation of people with disabilities (Thornicroft, Rose, & Kassam, 2007). Children with disabilities are particularly vulnerable to negative attitudes and often experience negative social outcomes including isolation (Nadeau & Tessier, 2006).

Inclusive education settings offer the opportunity for children with and without disabilities to interact. Contact alone however, may not be sufficient to foster positive attitudes and the formation of friendships (Beelmann & Heinemann, 2014; Tonnsen & Hahn, 2015). Socio-cognitive abilities, such as empathy and perspective taking have been suggested as important processes underlying the positive effects of contact between groups (Pettigrew, Tropp, Wagner, & Christ, 2011). Empathy may increase the likelihood of positive attitude change, with empathic children being more sensitive and compassionate

towards people they believe are less well-off than themselves (Nesdale, Griffith, Durkin, & Maass, 2005). Children able to take perspectives and who are empathetic might improve peer interactions within an inclusive setting.

Disability

Definitions of disability have referred to an individual's capacity to participate; for example, "those who have long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others." (United Nations [UN], 2006, article. 1). Current definitions of disability also make a distinction between the impairment an individual may have and the disabling influence that society imposes on them. Stemming from a rights-based model, as contrasting with the "medical" model, disability is defined as "the process which happens when one group of people create barriers by designing a world only for their way of living, taking no account of the impairments other people have." (Ministry of Health [MOH], 2001, p. 7).

Who is affected? People with disabilities represent the world's largest minority. They make up 15% of the global population (WHO, 2014), and include an estimated 93 million children (United Nations Children's Fund [UNICEF], 2013a). Rates of disability are rising due to increased life expectancy and associated chronic illness. In New Zealand (NZ), one in four people have a disability, including 11% of children under 15 years of age. Māori children have a disability rate of 15% compared with 9% for non-Māori children (Statistics NZ, 2013). Learning, speaking, and psychological impairments are the most prevalent in children, with rates of mental health related disability more than doubling over the past seven years. The highest rate of psychological impairment among children is seen in the 10-14 year old age bracket, with Māori being 1.3 times more likely to be affected than non-Māori. Reported rates of autism in children have also increased, tripling since 2006 (MOH, 2014).

Higher rates of disability in NZ, compared with global rates, are likely due to medical advancements and an ageing population. Increased willingness to report one's limitations, and improvements in disability surveying methods may have also contributed to NZ's high rates of disability (Statistics NZ, 2013).

Inclusion. Rising rates of disability emphasise the importance of creating more inclusive societies. Inclusion extends beyond “integration”, or simply bringing people together physically. It is guided by the underlying principle of valuing human difference. Inclusion encapsulates social acceptance of diversity, and the provision of opportunities for forming friendships between people who are dissimilar (Koster, Nakken, Pijl, & Van Houten, 2009). An inclusive educational approach ensures that all children realise their right to participation and companionship in the school environment (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2009). Negative attitudes towards children with impairments represent a barrier to full participation, and are a major obstruction to achieving social inclusion (McDougall, DeWit, King, Miller, & Killip, 2004; Vignes et al., 2009). Thus, in addition to providing equitable learning opportunities and outcomes, positive attitudes from educators, peers, government entities, and society as a whole are paramount for successful inclusion to occur.

Experience of children with disabilities. Children with disabilities have more difficulty participating socially (de Boer, Pijl, & Minnaert, 2010), and are more likely to experience negative attitudes compared with their typically developing peers (Nowicki & Sandieson, 2002). In a study which focused on strategies to improve social inclusion for adolescents with physical disabilities (*M* age = 13.6 years old), children gave accounts of trying to hide their impairments from peers for fear of exclusion; for example, “I tried to hide my cerebral palsy. I wasn't really open about it. I guess I was ashamed and just wanted to be like everyone else” (Lindsay & McPherson, 2012b, p. 811). Children with disabilities

reported that exclusion often stemmed from their peers' lack of understanding of differences; for example, "A lot of issues stem from ignorance and just not being able to understand . . . Don't make fun of a person because he walks differently or he uses a cane to walk" (Lindsay & McPherson, 2012b, p. 812). Children with communication impairments expressed their frustration at being ignored and talked down to; for example, "I am not an imbecile. I am not invisible. I am not a moron. Don't treat me like I don't exist" (Lindsay & McPherson, 2012a, p. 106).

Feelings of loneliness and isolation are more common in children with disabilities, and they are less likely than children without disabilities to report feelings of acceptance, safety, and belonging in the school environment (Hogan, McLellan, & Bauman, 2000). In an Australian study involving 11-16 year old students who identified as having a disability, participants rated their experience at school as being substantially less satisfactory than their peers without disabilities. Participants were less confident, and reported greater levels of peer conflict at school. They were also half as likely than their typically developing peers to report that school was a nice place or that they were treated equitably by their teachers (Hogan et al., 2000). Teacher attitudes have included the belief that students with disabilities require more time and effort to teach, and that the effects of having them in their classroom is detrimental to the learning of students without disabilities (Burke & Sutherland, 2004). Negative attitudes have also resulted in teachers being more rejecting and less sympathetic of students with disabilities (Cook, Cameron, & Tankersley, 2007). Overall findings suggest that students with disabilities often feel alienated within their school environment due to the negative attitudes of both peers and educators.

Attitudes

The concept of attitude was first used in social psychology nearly a century ago. Since this time, researchers and theorists have contributed to the literature with hundreds of

definitions of attitude. A central theme has been the aspect of evaluation (Albarracín, Zanna, Johnson, & Kumkale, 2005). Eagly and Chaiken (2007) defined attitude as “a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavor” (p. 582). In the present study, the entity represents children with disabilities, and the tendency exhibited may be positive or negative depending on the evaluation. Attitudes are regarded as multidimensional, incorporating cognitive, affective, and behavioural components (Fig. 1.1; Triandis, 1971). The cognitive aspect incorporates knowledge and beliefs regarding the child with a disability; for example, ‘All children who use a wheelchair are sick.’ The affective dimension reflects the emotion that charges the psychological tendency. It is based on good or bad feelings towards the child and includes emotional reactions, such as fear and anxiety; for example, ‘Children that look different make me feel uncomfortable.’ The behavioural component relates to intended or actual behaviour towards the child with a disability; for example, ‘I would not invite a child with a disability for a sleep

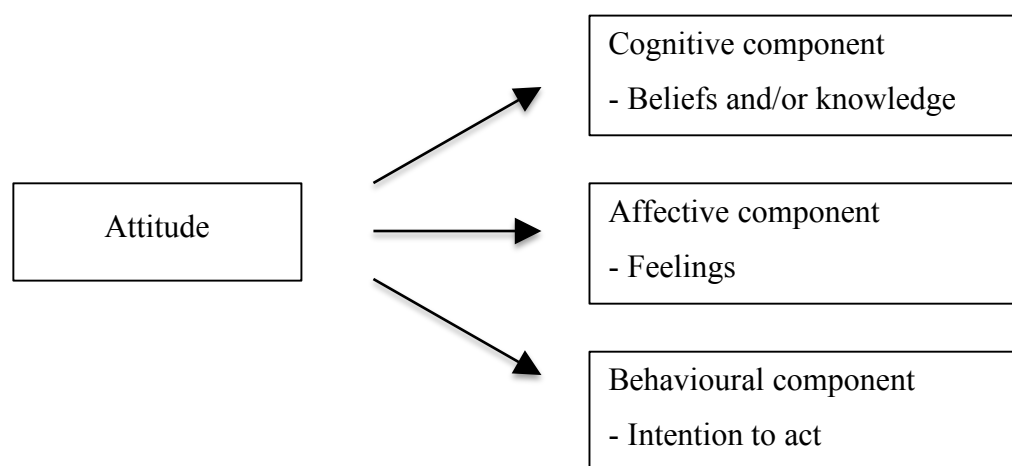


Figure 1.1. The concept of attitude and its three components. Adapted from “Regular primary schoolteachers' attitudes towards inclusive education: A review of the literature” by A. de Boer, S. Pijl, and A. Minnaert, 2011, *International Journal of Inclusive Education*, 15(3), p. 334. Copyright 2011 by Taylor & Francis. Adapted with permission.

over at my house.’ The cognitive aspect is the first and critical component required for having an attitude. Feelings associated to the cognition allow the affective dimension to develop. The resulting actions which follow reflect the behavioural component of attitude.

Developmental progression of attitudes in children. Attitudes in relation to people with disabilities are formed early in childhood (Krahé & Altwasser, 2006).

This comes about as a child develops the ability to categorise, or place objects together based on common themes. Categorical learning helps the child to organise their everyday knowledge and make sense of the world (Berk, 2013). Attitudes are formed about categories and category members based on them sharing the same characteristics. Thus, children at this stage of development form their first attitudes about people with visible disabilities, as a function of human categorisation. Understanding of disability at the pre-school stage, may be limited to aspects such as adaptive equipment, such as wheelchairs. Research has shown that in these early years, children’s attitudes may not necessarily relate to their parents’ attitudes (Hong, Kwon, & Jeon, 2014) and while typically developing children may have a degree of bias against peers with physical disabilities, their attitudes are not decidedly negative (Huckstadt & Shutts, 2014).

As children grow, a variety of influences operating within the environment may lead them to construct negative attitudes towards people with disabilities. Determinants of negative attitudes appear embedded in social processes, such as a Western culture that emphasises health, beauty, and the desire for physical perfection (Lee & Rodda, 1994). Imperfection on a physical or psychological level signals difference and a subsequent threat to the uniformity of group norms. In the media, people with disabilities have been portrayed variously as tragic, having special needs, sick, suffering, and seeking help (Ruffner, 1990). Recent studies of mass media have found that depictions of people with mental illness are generally negative and stigmatising (Nairn, Coverdale, & Coverdale, 2011), with images

portraying them as unpredictable, dangerous, and criminals (Stuart, 2006). Conversely, images of people with disabilities may be ignored altogether. In a study that analysed thousands of illustrations and photographs commonly presented to primary school students, less than 2% of the images depicted a person with a disability (Hodkinson, 2012). The omission in children's literature of images and characters with a disability signals a message that people with disabilities are less valuable and less interesting than other members of society (Beckett, Ellison, Barrett, & Shah, 2010), and this may also lead to the development of negative attitudes.

By the early school years, children have usually absorbed the prevailing attitudes of the society in which they live, and have developed an in-group bias or favouritism. Research has indicated that children of this age think of people with disabilities as being sick, and their views are still generally independent from those of their parents (Meloni, Federici, & Dennis, 2015). Furthermore, their egocentric view, which is characterised by this stage of development, may prevent them from altering faulty reasoning, even though their environment offers disconfirming evidence. There is also a tendency at this stage to focus on a single aspect of a situation or experience, and ignore other potentially important factors (Berk, 2013). In-group bias or favouritism develops rapidly and strongly, and is often followed closely by attitudes of out-group prejudice. A child may form negative attitudes or beliefs about another person or group, while ignoring within-group diversity. Attitudes may be formed in advance of any experience with that person or group, and tend to be resistant to contrary evidence (VandenBos, 2009; Matsumoto, 2009).

Once a child reaches the concrete operational stage of development (ages 7-11 years), thinking becomes more organised, logical and flexible in relation to concrete information. Knowledge and understanding regarding disability grows, and this is associated with a reduced level of in-group bias and a decrease in stereotypical beliefs (Aboud, 2003; Meloni et

al., 2015). At this stage also, children become more able to form attitudes based on the viewpoint of others, and are more open in particular to the attitudes of their parents. Increased cognitive abilities allow children aged 9-11 years to better understand their parents' explanations and representations of disability, when compared with children aged 6-8 years (Meloni et al., 2015).

By around 11 years of age, children are presumed to have reached the formal operation stage of cognitive development, which is characterised by the capacity for more abstract thinking. Thus, children at this stage, when compared with 8-9 year olds, have a greater understanding of invisible disabilities, such as cognitive and learning impairments. They are also more able to appreciate the impact of having a disability, particularly in relation to social and emotional aspects (Magiati, Dockrell, & Logotheti, 2002). Research suggests that the ability to take the perspective of another and express concern, otherwise known as empathy, develops alongside the maturing brain of the adolescent (Choudhury, Blakemore, & Charman, 2006). While earlier research indicates empathy is exhibited in children from their preschool years (Eisenberg et al., 1990), more recent studies on socio-cognitive development show it is not until a child reaches adolescence that they are able to efficiently and systematically process the emotional perspectives of others (Choudhury et al., 2006). This advanced level of perspective taking allows the young person to respond empathically to a group of people who may be oppressed, impaired, or in some way marginalised (Hoffman, 2000), and is a key factor affecting the attitudes of children at this stage (Beelmann & Heinemann, 2014).

Influencing factors. Other factors, including the type and perceived characteristics of an impairment can influence attitudes (Marom, Cohen, & Naon, 2007; de Laat, Freriksen, & Vervloed, 2013; Tonnsen & Hahn, 2015). The most intense negative attitudes are shown towards children with developmental disabilities that include impairment in language or

communication skills (Barr & Bracchitta, 2015). Attitudes vary based on whether children have a physical or cognitive disability, with research showing that students are more inclined to engage in activities with peers with physical disabilities than peers with intellectual disabilities (Brown, Ouellette-Kuntz, Lysaght, & Burge, 2011). Additionally, Weiserbs and Gottlieb (2000) reported that the duration of a disability affected a child's willingness to be friends with a peer with a disability. In their study of 492 primary and secondary school students, children perceived a temporary condition as being less threatening than a permanent condition. Vignes and colleagues (2008) found further factors that were independently linked to the attitudes of students towards peers with disabilities. Specifically, attending a school with separate classes for children with intellectual disabilities correlated with more negative attitudes; whereas being female and having a good quality of life were associated with more positive attitudes (Vignes, Coley, Grandjean, Godeau, & Arnaud, 2008). Being friends with a person with a disability and being provided with information about disabilities also correlated with more favourable attitudes (Vignes et al., 2008).

Attitudes are complex, comprising multiple dimensions. It is thought that attitudes towards people with disabilities begin to develop via a process of human categorisation, and in the earliest years are not markedly negative. However, by school age, children may be influenced by the negative stereotypes apparent in their environment, and in-group bias may be followed by prejudice towards those who are different. In the older child, understanding regarding disability grows together with increased cognitive abilities, and a greater openness to parental representations. Alongside growing perspective taking abilities, a greater appreciation of the social and emotional impact of disability marks the stage of pre-adolescence. Independently associated with children's attitudes may be other factors such as the nature of a peer's disability and previous contact with people who have a disability.

Changing Attitudes

In response to a growing focus on the promotion of more accepting and socially inclusive societies, theorists have proposed how best to break down the barriers of misconception and negative stereotyping. Several strategies for changing attitudes towards people with disabilities have been suggested. Informed by differing theoretical frameworks, interventions to improve attitudes towards people with disabilities have achieved varying levels of success.

Knowledge. Persuasive theory (Olson & Zanna, 1993) is based on the premise that regular provision of new information is required to affect a change in attitudes. While knowledge regarding peers with disabilities has been found to increase levels of social acceptance (de Boer, Pijl, & Minnaert, 2012), it may not be sufficient to affect significant improvements in attitude (Bella-Awusah, Adedokun, Dogra, & Omigbodun, 2014). Watson and colleagues (2004) evaluated the effects of a 6-hour educational programme on the knowledge and attitudes of middle school students aged 11-14 years ($n = 1,566$). “The Science of Mental Illness” programme, which was incorporated into the school curriculum, focused on information delivery, including the biological causes of mental illness, risk factors associated to developing mental illness, and effective treatments. In a pre-post design, two independent measures were used to assess the students’ knowledge and attitudes regarding mental illness. Watson and colleagues (2004) reported significant improvements in both knowledge and attitude scores, however the intervention effects varied greatly. While the programme yielded a large effect for knowledge ($d = 1.22$), it produced only a small effect for attitude ($d = 0.25$). Result of studies involving programmes, which are limited to information delivery, indicate that knowledge alone may be insufficient to affect large positive changes in attitudes towards people with disabilities (Watson et al., 2004; Bella-Awusah et al., 2014).

Contact. The theory of mere exposure effect (Zajonc, 2001) proposes that when an object is repeatedly experienced or made visible to a person, their attitude towards it will eventually change. The effect of this repeated exposure can be viewed as a form of classical conditioning, whereby the person develops an eventual preference for the object to which they are exposed (Zajonc, 2001). This theory perhaps best aligns with physical ‘integration’; however, simply placing children with disabilities in mainstream classrooms does not guarantee successful social outcomes (de Boer et al., 2012; Lindsay & McPherson, 2012b).

One of the most influential theories in modern times, associated with attitude change, relates to personal contact between groups. The theory of intergroup contact suggests that personal contact with people who belong to an out-group that has been negatively stereotyped, will generally improve one’s attitude towards that out-group (Allport, 1954). Contact between groups typically reduces intergroup threat and anxiety (Pettigrew, 1998), and may enhance empathy for the out-group (Pettigrew et al., 2011). Originally developed in relation to interaction between different ethnic groups, contact theory has since evolved to being used with other groups, such as people with disabilities. Based on the “contact hypothesis”, social contact between children with and without disabilities, in an inclusive and supportive environment, is likely to assist the development and maintenance of positive attitudes towards peers with disabilities (Krahé & Altwasser, 2006). This was demonstrated in a recent review of 35 studies which found that contact between children with and without disabilities correlated with more positive attitudes towards disability (Macmillan et al., 2014). However, the relation between contact and attitudes is complex. Allport’s (1954; 1979) conditions for a reduction in negative attitudes were that groups share equal status, and their interaction involve the cooperative pursuit of a common goal, support of those in authority, and the opportunity to form friendships. Positive social outcomes as a result of intergroup contact in educational settings may also be moderated by teachers’ views on the value of

diversity (Grütter & Meyer, 2014). More recent views also propose that while Allport's (1954; 1979) conditions assist in fostering more positive intergroup attitudes, a major mediator of the relation between contact and attitudes is empathy (Pettigrew et al., 2011).

Empathy. Recent research has identified empathy and perspective taking as mediators of the relationship between prejudice and intergroup contact (Nesdale et al., 2005; Pettigrew et al., 2011). It appears that having a sense of how out-group members feel and perceive the world leads to a reduction in negative attitudes towards that out-group. This relationship was corroborated in a recent evaluation of the effects of an empathy-based programme on the attitudes of adolescents towards peers with mental illness (Murman et al., 2014). Students aged 12-19 years old who participated in the programme for 18 weeks ($n = 78$) were compared with a same age control group of students who did not participate in the programme ($n = 811$). "Let's Erase the Stigma" (LETS) consisted of one hour weekly club meetings facilitated by the students themselves and a club advisor, who was usually a teacher. The weekly meetings were highly interactive sessions that involved personal disclosure from guest speakers and student members who had experienced stigmatisation related to their mental illness. The programme also incorporated group discussion on how to reduce stigma at a community level, and projects working in the community for stigmatised groups. Using a posttest-only design, Murman and colleagues (2014) reported significant improvements in the intervention group, when compared with the control group, across four dependent variables in relation to mental illness: attitudes, social distance, anti-stigma actions, and knowledge. Findings indicated that the LETS programme yielded positive effects, not only because it increased knowledge and incorporated direct intergroup contact, but also because it enhanced empathy among its participants.

Summary

Positive attitudes of peers are critical to successful social outcomes, as well as a child's wellbeing and quality of life (Rillotta & Nettelbeck, 2007; de Boer et al., 2012). However, evidence shows that children's attitudes towards peers with disabilities are often negatively biased (Sandieson & Nowicki, 2002). Children with disabilities have a greater risk of being bullied and socially excluded (Lindsay & McPherson, 2012a), and are more likely to feel alienated in their school environment as a result (Hogan et al., 2000). Changing the attitudes of children towards their peers with disabilities is considered paramount in the process of full social inclusion. An educational approach, in the form of disability awareness training, is a means of not only enhancing knowledge regarding disability but may also promote acceptance of peers with disabilities, through a process of enhanced empathy. If attitudes can be transformed to embrace diversity, there will be a shift towards truly inclusive educational environments, and a society that is more non-disabling. In a non-disabling society, every child will have the opportunity to achieve to the best of their abilities, and schools and communities will be enriched by the contribution of all of their learners.

Chapter 2: Literature Review

The purpose of this literature review is to explore and identify the successful components of an educational approach to improve children's attitudes towards peers with disabilities. It begins by examining what may be considered the gold standard of awareness programmes, those which are manualised. Systematic evaluations of the effectiveness of interventions to improve children's intergroup attitudes are then examined. This is followed by a specific review of the literature on manualised disability awareness programmes, including a critical analysis of programme content and the methodological limitations of the research. The chapter ends by identifying the research questions to be addressed, together with the rationale for the present study.

Manualised awareness programmes are based on a format that is both structured and standardised. They consist of an identifiable set of different units or components that are completed following a step-wise process (Beelmann & Heinemann, 2014). Therefore, manualised disability awareness programmes contain more than one component and do not simply comprise, for example, unstructured contact with a person with a disability. Although not all programmes include a physical manual, each involves a number of easily recognisable methods organised in a series of distinct stages. These methods set out the formal guidelines by which programme content and procedure can be easily replicated. Manualised interventions not only aid replicability, but also allow for the easy dissemination of effective programmes over time and across settings. They also promote implementation fidelity, and likely lead to improved participant outcomes (Goldstein, Kemp, Leff, & Lochman, 2012). Manualisation makes programmes systematic, and allows monitoring to ensure that they are delivered consistently, and with accuracy to all participants in a comparable manner (Smith, Daunic, & Taylor, 2007). With fidelity of implementation, manualised programmes are more

likely to be well-designed, empirically supported, and evidence-based (Goldstein et al., 2012).

Meta-Analyses and Systematic Reviews

Manualised disability awareness interventions were demonstrated to yield moderate effects ($d = 0.45$) in relation to improving children's attitudes towards people with disabilities in a recent review (Beelmann & Heinemann, 2014). This review began with an initial search of 214 research articles on structured and standardised interventions, and a total of 81 studies that met criteria were analysed, incorporating the comparison of 122 intervention and control groups. In studies that involved children aged 10-13 years, interventions to improve attitudes towards out-groups related to disability, age, and ethnicity produced a small to moderate effect ($d = 0.30$). Meta-regression analysis revealed that programme components yielded differing effect sizes due to most programmes consisting of multiple components. The highest effect sizes were found for training in empathy and perspective taking ($d = 0.50$), used in 20% of programmes, and direct intergroup contact ($d = 0.48$), used in 18% of programmes. However, since this review focused on "out-groups", including age and ethnicity as well as disability, its findings on programme components likely to improve intergroup attitudes did not relate specifically to people with disabilities.

A review considering only disability awareness interventions found improved attitude and/or knowledge was achieved in the majority of studies (88%), with just five (12%) studies not achieving significant improvements (Lindsay & Edwards, 2013). Of the 42 studies on disability awareness interventions identified, 26 included children between the ages of 11-13 years, and 18 met the criteria for a manualised disability awareness intervention. Lindsay and Edwards (2013) conducted a complex analysis of the rigour of the study methodology and the effectiveness of the intervention. They concluded that programmes which incorporated several different components, such as videos, group discussion, simulation, and

interaction with a person with a disability, were more successful in producing positive outcomes. In addition, programmes that involved multiple sessions conducted over time demonstrated greater effectiveness when compared with brief one-off sessions. However, the overall length of time or duration of the intervention required to yield greater effectiveness was not evaluated.

In a review that examined the duration of manualised disability awareness programmes, interventions that did not result in improved attitudes were approximately 2.5 hours or less (Leigers & Myers, 2015). Of the 30 studies evaluated, 17 involved children between the ages of 11-13 years. Results from these 17 studies showed that students who were engaged in a programme for 3 hours or more were more likely to achieve improved attitudes. Analysis of the studies indicated that programmes of longer duration provided students with the opportunity to engage in multiple approaches, including the acquisition of practical knowledge, discussion groups, and hands-on learning. More time allocated to programmes also suggested a strong commitment from teachers and facilitators, and indicated a greater level of importance to participants compared with shorter programmes. Leigers and Myers concluded that increased duration of a disability awareness programme coincided with improved student attitudes towards people with disabilities (Leigers & Myers, 2015).

Systematic evaluations of manualised disability awareness programmes have suggested it is possible to improve children's attitudes towards people with disabilities (Beelmann & Heinemann, 2014; Lindsay & Edwards, 2013). Analysis of programme content identified social contact with a person with a disability as a key component of effective interventions, and direct contact yielded better results than indirect contact (Beelmann & Heinemann, 2014; Lindsay & Edwards, 2013). Training in the socio-cognitive abilities of empathy and perspective taking was also a successful component, and interventions with

facilitators who took an active role in the programme delivery yielded higher effects than interventions without this component (Beelmann & Heinemann, 2014). Group discussion led to greater effects in one review of studies (Leigers & Myers, 2015), but Beelmann and Heinemann (2014) found that group discussion had a negative influence on outcomes across different out-groups. Increasing the duration of programmes positively influenced attitudes, and may have led to more sustained effects, particularly in studies involving children aged 11-13 years old (Leigers & Myers, 2015). The use of a number of key components and a longer programme duration have been associated with more successful outcomes.

Additional recommendations were identified in the reviews to improve the effectiveness of disability awareness interventions. Programmes should include multiple components such as simulation, visual media and class activities, and be delivered over multiple sessions. They should be interactive, and not restricted to instructive materials alone (Beelmann & Heinemann, 2014; Lindsay & Edwards, 2013). Programmes should be integrated into the school curriculum whenever possible, and take a whole school approach. Involving students, parents, teachers, and school boards and management will promote global socialisation towards positive attitudes as a social norm (Beelmann & Heinemann, 2014; Lindsay & Edwards, 2013). Finally, the involvement of health professionals, teachers, and children with disabilities in development of disability awareness programmes would help to ensure that they are both culturally responsive and context specific (Lindsay & Edwards, 2013). In addition to recommended content and delivery style, collaboration among key stakeholders in relation to programme design and dissemination was also found to be critical.

Several limitations in study methodology were highlighted in the evaluations. There was agreement across reviews that many studies lacked valid and reliable measures of intergroup attitude that were age-appropriate (Beelmann & Heinemann, 2014; Lindsay & Edwards, 2013). In particular, the use of instruments to assess changes in the emotional

component of attitude was neglected. This was problematic as negative emotions have been found to reduce intergroup contact and hinder intergroup friendships (Beelmann & Heinemann, 2014). Additionally, actual behaviour towards peers with a disability post-intervention was generally not assessed (Beelmann & Heinemann, 2014; Leigers & Myers, 2015). All reviewers agreed that there was a lack of longitudinal studies and follow-up data to examine whether positive changes in attitude were sustained over time (Beelmann & Heinemann, 2014; Leigers & Myers, 2015; Lindsay & Edwards, 2013). Measurement of implementation fidelity was also largely absent. Lastly, most studies failed to ground their design with an understanding of child development and theory related to people with disabilities (Beelmann & Heinemann, 2014). Overall, study findings should be interpreted with caution due to the identified limitations, in particular related to outcome measures.

Children's attitudes towards people with disabilities are typically measured in research studies with the use of questionnaires that require them to respond to items based on a Likert scale. An example of an instrument that has been commonly used is the Chedoke McMaster's Attitudes Toward Children with Handicaps Scale (CATCH; Rosenbaum, Armstrong, & King, 1986). CATCH is a 36-item questionnaire that measures cognitive, affective, and behavioural dimensions of attitude. Cognitive items involve beliefs about a peer with a disability; for example, "Handicapped children need lots of help to do things." Affective items comprise statements about feelings towards a peer with a disability; for example, "I feel upset when I see a handicapped child." Behavioural items measure the intention to engage with a peer with a disability; for example, "I would invite a handicapped child to my birthday party." Participants respond to an equal number of positive and negative statements (12 in each domain) using a 5-point Likert scale (0 = *strongly disagree* to 4 = *strongly agree*). Possible scores range from 0-40, with higher scores indicating more positive attitudes. Instruments such as CATCH, which has been used in at least 60 research studies

since its development, are a standardised means of assessing children's attitudes towards people with disabilities.

Review of the Literature on Manualised Disability Awareness Programmes

In addition to evaluations cited in Section 2.1, another 13 studies on manualised disability awareness programmes, which include 16 intervention comparisons, have been identified to add to the existing research. Studies focused on training or intervention to improve children's attitudes towards people with disabilities and all involved pre-adolescents. The target age of 11-13 years was chosen as children at this stage of development have been identified as having the cognitive capabilities that support empathy and perspective taking (Hoffman, 2000). All programmes met the necessary criteria for them to be considered manualised (previously cited studies by Watson et al. (2004) and Murman et al. (2014) were excluded on this basis). Additionally, details regarding programme components, and subject matter of sessions were required in order to conduct analysis related to programme content. Lastly, all studies needed to include a measure of attitude towards people with disabilities, and report means and either standard deviation or standard error estimates. Analysis of the effectiveness of the additional studies, and comparison with existing reviews was possible with the above search parameters.

To provide an independent and over-arching analysis of these studies, Cohen's (1998) *d* was employed to calculate intervention effect sizes according to Thalheimer and Cook's (2002) simplified method. When means and standard deviations were available, effect sizes were calculated as the difference between posttest and pretest means divided by the pooled standard deviation of the intervention at pretest and posttest. When only posttest scores were available, the effect size was calculated as the difference between the intervention and control group means divided by the pooled standard deviation of the intervention and control group. When standard errors were reported instead of standard deviations, standard deviations were

calculated by multiplying the standard error by the square root of the number of participants. Effect sizes were calculated in the same manner for all control and comparison groups in order to determine whether improvements in scores over time were a result of the intervention itself. Effect sizes for each of the outcome measures used were also calculated. According to Cohen (1998), a post-intervention effect size of greater than or equal to $d = 0.80$ was classified as large. Effect sizes ranging between $d = 0.50$ and $d = 0.79$ were classified as medium, and small effects were determined with ranges between $d = 0.20$ and $d = 0.49$. An effect size of $d < 0.20$ was considered a nil effect, even if it was statistically significant.

Studies which evaluated manualised disability awareness interventions are presented according to two of the key attributes identified for effective programmes (Beelmann & Heinemann, 2014; Leigers & Myers, 2015; Lindsay & Edwards, 2013). Specifically, studies are arranged based on whether or not the intervention was at least three hours in duration, and whether or not direct intergroup contact was included as a programme component.

Studies of less than three hours duration, with no direct contact. Tavares (2011) examined the attitudes of 51 students towards peers with disabilities, following a single 45-minute session. Students aged 12-13 years old, who attended schools with children with disabilities participated. Classmates of a child with cerebral palsy, from three schools, made up the intervention groups ($n = 40$). Students from a fourth school, who had exposure to a child with a disability, but who did not receive the session, served as the comparison group ($n = 11$). Improvements in attitude scores were demonstrated across all three intervention schools but were generally not maintained at a one month follow-up. The only school to maintain attitude improvements at follow-up was the school where the child with a disability was not present during the programme. Results from a measure of social inclusion suggested that this child also enjoyed the most positive change. The comparison school group showed no significant changes. The intervention effect for the group in which the child with a

disability was not present during the programme was small ($d = 0.31$). The groups in which the child with a disability was present during the programme yielded nil ($d = 0.18$) and small ($d = 0.38$) effects. Intervention effects on children's attitudes were variable, and may have been limited by the programme's short duration.

The "Kids are Kids" programme lasted less than one hour, but involved multiple components, including information delivery, indirect contact via visual media, and training in empathy and perspective taking (Tavares, 2011). Students discussed their existing knowledge regarding their classmate's disability and then watched a video highlighting the similarities of all children. Following the video, specific information was provided regarding their classmate's disability, and participants brain-stormed and role-played ideas on how to include their peers socially. The child with a disability who was not present during the programme received individual social skills training. Direct contact was not a component of the programme, however participants had regular opportunities to interact with their classmate with a disability should they wish to do so. While a healthcare provider and teacher were involved in the development of the programme, a whole of school approach was not taken. Multiple components and an interactive style may have compensated for the brevity of this programme to produce some positive outcomes.

Children's attitudes towards their classmate with a disability were measured in a pre-post design, and included the collection of data at a one month follow-up. A valid, reliable, and age-appropriate measure was employed which incorporated assessment of the emotional component of attitude. Unlike all other studies reviewed, Tavares (2011) included a measure of actual behaviour towards children with disabilities. Theories on attitude change and the formation of attitudes in childhood contributed to the strength of this study. Overall, many methodological features cited in successful studies of manualised disability awareness programmes were evident in Tavares' (2011) research.

Godeau et al. (2010) investigated the effects of a 2-hour disability awareness programme, which was incorporated into a school humanities curriculum. Participants were students aged 12-13 years ($n = 1509$) from twelve schools, half of which had special education units. Students from schools with special education units had exposure to children with disabilities via shared lessons and activities. Participants were randomly assigned to an intervention group ($n = 895$) and a control group ($n = 614$). Results showed no significant programme effect, as attitude scores increased for both groups. Strongest improvements were demonstrated in the cognitive domain of attitude with small effects for both the intervention and control groups ($d = 0.43$ and $d = 0.34$ respectively). Participants with lower improvements in attitude were more likely to report having no close friendships ($B = -2.6$, $SE = 0.8$), and there was a correlation between lower improvements in attitude and attending a school with a special education unit ($B = -1.1$, $SE = 0.4$). Even though this programme was integrated into the school curriculum, results suggest that improvement in attitude scores over time was determined by something other than the intervention itself.

The curriculum project was implemented with a strong whole of school approach (Godeau et al., 2010). At the outset, school staff and leadership viewed a film on inclusive education and then the research team led a debate focusing on the social model of disability. Humanities teachers in the intervention group then prepared their own lessons on disability and inclusion. The two 60-minute lessons included indirect contact and group discussion. In the first lesson, students viewed a video on the life of adolescents with a physical disability in an inclusive French school setting. The teacher then led a class discussion on differences and disability. In the second lesson, students worked on a project related to disability and inclusion. There was no direct contact with peers with a disability. Many levels of the participating schools were involved in this multi-component intervention, however the programme overall suffered from a weak level of manualisation.

Changes in participant attitudes were measured in a pre-post design, however the post-test was not carried out until four months after the disability awareness sessions (Godeau et al., 2010). A valid, reliable, and age-appropriate instrument was employed, which included the emotional component of attitude. Data related to socio-economic status, quality of life, peer relationships, friendships, and disability knowledge was also collected at baseline. Disability knowledge was determined with specific questions related to disability, and by asking students whether they knew any family members or peers with a disability. Associations between these personal and environmental factors and attitude changes among participants were tested in statistical analyses. Assessment of actual behaviour towards peers with disabilities was neglected, and there was no measure of fidelity of programme implementation. This was problematic in light of the flexibility the teachers were given to design their own lessons. Weaknesses in research design, including the delay in collecting post-test data, call in to question the validity of this study's findings.

Campos, Ferreira, and Block (2014) examined the effects of a 2.25 hour manualised programme on student attitudes towards including peers with disabilities in physical education (PE) classes. Students aged 11-16 years ($n = 509$) participated, including 235 girls (M age = 13.2 years) and 274 boys ($M = 13.5$ years). Approximately 25% of participants reported having a classmate with a disability in their PE class, and nearly 50% reported having a friend or relative with a disability. Significant improvements in overall and general PE attitudes were reported, however there was no change in sport-specific attitudes. Multiple regression analyses demonstrated higher attitude scores for participants who had a family member with a disability ($B = 0.7$, $SE = 0.3$) and a classmate with a disability in their PE class ($B = 1.6$, $SE = 0.3$). The programme produced small effects for overall ($d = 0.29$) and general PE attitudes ($d = 0.39$), but no effect for sport-specific attitudes ($d = 0.05$). In general, this brief programme had some positive influence on attitudes towards including

peers with disabilities in PE, however this may have been limited to less competitive students who had previous contact or prior experience with people with disabilities.

The “Adapted PE Week” was delivered by physical educators, and consisted of one 90 minute and one 45 minute PE session conducted over one week (Campos et al., 2014). The programme comprised multiple components including information delivery regarding the Special Olympic and Paralympic movements, indirect contact via videos, and training in empathy and perspective taking via simulation activity. For approximately 80% of the programme duration, participants were involved in sports activities including wheelchair basketball, sitting volleyball, a ball game blindfolded, and bowls using a wheelchair. There was no direct contact with peers with disabilities. While the programme was physically interactive, it lasted for less than three hours duration. The potential success of this programme may have been compromised by its brevity and predominant focus on disability simulation.

Campos and colleagues (2014) employed a pre-post design to measure attitude changes towards the inclusion of peers with disabilities. A valid and reliable measure was used, however it did not assess the emotional dimension of attitude. Measurement of attitude change ignored the assessment of actual behaviour towards peers with a disability, and changes in pre-post levels of empathy were also overlooked. The questionnaire was administered one week prior to and one week post-intervention but no follow-up data was collected to determine whether improved attitudes were maintained in the longer term. Manualised interventions may generate improved attitude in the short-term, however improvements may not be sustained into the future (i.e., Tavares, 2011). The study did not incorporate developmental research or theory on attitude change, and the fidelity of programme implementation was neglected. Several limitations in relation to design and methodology may have compromised the validity of the study findings.

Clarke, Ventieri, and Hay (2011) assessed the effects of a manualised programme to improve knowledge and attitudes towards people with mental illness. Students aged 9-12 years old participated, including an intervention group ($n = 69$) and an age-matched control group ($n = 126$). Significant improvements in not only knowledge, but also attitudes and social distance were reported for the intervention group, with improvements sustained at a four month follow-up. Attitude scores for the control group also showed some improvement, which was maintained at follow-up. The brief programme produced a large effect for knowledge ($d = 0.90$), a small effect for social distance ($d = 0.42$), and small to large effect sizes for attitude (ranging from $d = 0.33$ to $d = 1.15$). A small attitude effect ($d = 0.25$) was also generated in the control group suggesting that improvements in attitude scores over time may have been determined by something other than the programme itself. Alternatively, findings may indicate that the acquisition of knowledge regarding mental illness is a prerequisite to improving attitudes towards people with mental illness.

The 2.75 hour manualised programme, which was conducted over two consecutive days, was based largely on information delivery (Clarke et al., 2011). Programme components did not include direct contact but the style of delivery was highly interactive involving activities, games and role-play. Teachers and healthcare providers played a key role in the development of the programme and the intervention was based on a whole of school approach. While the manualised programme was less than 3 hours in duration, it is likely that its highly interactive nature contributed to its positive effects.

The pre-post design incorporated separate measures of knowledge, attitude, and social distance towards people with a mental illness (Clarke et al., 2011). These instruments were based on valid, reliable, and age-appropriate measures, and were specifically designed for the study. The attitude measure consisted of two subscales, “Unkindliness” and “Benevolence”. “Unkindliness” items reflected an uncaring and negative view of people with mental illness,

while “Benevolence” represented a kind and sympathetic view. A social distance scale was used to measure participants’ willingness to interact with a person with a mental illness. Questionnaires were completed one week prior to, and one week post-intervention. Follow-up data was collected four months following the programme completion, however there was no data collected on actual behaviour towards people with a mental illness. Measurement of fidelity of programme implementation was also neglected. Aside from a number of limitations, the study methodology supported some promising findings.

Studies of at least three hours duration, with no direct contact. Bella-Awusah and colleagues (2014) evaluated the effects of an alternative programme that focused on knowledge and attitudes towards people with mental illness. Nigerian students aged between 10 and 18 years were allocated into an intervention group ($n = 78$; M age = 15.3 years) and a control group ($n = 76$; M age = 14.3 years). Knowledge scores increased significantly compared with the control group immediately following the intervention, and at a six month follow-up. However, there was no significant difference between intervention and control group scores for attitude and social distance, or the willingness to interact with a person with a mental illness. Calculation of intervention effects showed that the programme yielded a large effect ($d = 0.83$) for improved knowledge regarding mental illness. However, intervention effects in relation to attitude and social distance yielded a small negative effect ($d = -0.33$) and no effect ($d = 0.18$) respectively. Overall, findings indicated that increases in knowledge may be more easily attained than improvements related to attitude and social distance towards people with mental illness.

Many key components, previously identified to affect positive changes in attitude, were overlooked in this mental health awareness programme (Bella-Awusah et al., 2014). The programme incorporated information delivery, small group tasks, and group discussion, but failed to include direct contact with a person with a disability. Indirect contact was also

largely ignored. The duration of the programme was 3 hours, however it was not conducted over multiple sessions. The single session was facilitated by two consultants in youth psychiatry, but it was not reported whether healthcare providers were involved in the development of the United Kingdom (UK) programme. Lastly, the programme was not integrated into the school curriculum, and the intervention did not take a whole of school approach as participants were selected from four different schools. The lack of key components is likely to have undermined the programme's effectiveness in improving student attitudes.

A pre-post design was employed to assess participants' knowledge, attitudes and social distance towards people with a mental illness (Bella-Awusah et al., 2014). Participants were assessed at baseline, immediately following the intervention, and at a six month follow-up. As with the programme itself, the outcome measure was an amended version of a questionnaire developed in the UK. It is debatable whether the questionnaire, or programme itself, were valid and reliable for use in the African context. The questionnaire did not evaluate the emotional dimension of attitude and actual behaviour towards people with a mental illness was not assessed. Other key limitations of this study were the difference in age between the intervention and control group participants, and the broad age range of the participants (aged 10-18 years) and a failure to control for maturation effects associated with the different stages of psycho-social and cognitive development during adolescence. Lastly, there was no measure of fidelity of programme implementation. This latter evaluation is crucial to determine the accuracy and consistency with which an intervention is implemented. It also denotes a programme that is well-designed (Goldstein et al., 2012). Flaws in research method may potentially limit the validity and reliability of the study outcomes.

De Boer, Pijl, Minnaert, and Post (2014) compared the effects of a manualised programme on the attitudes of two different age groups towards peers with physical and

intellectual disabilities. Students aged 5-6 years ($n = 53$) and students aged 8-12 years ($n = 177$) participated, and comprised a younger student intervention group ($n = 22$) and control group ($n = 31$), and an older student intervention group ($n = 76$) and control group ($n = 101$). Results showed that the younger student group held significantly more positive attitudes immediately following the intervention compared with the control group. For this age group, the intervention initially yielded a large effect ($d = 1.23$). At a one year follow-up however, attitudes of younger students in both intervention and control groups were significantly improved compared with baseline indicating that long term improvement came about for reasons other than the intervention itself. For the older student group, a small negative effect ($d = -0.28$) was found. Boys had more negative attitudes overall regarding people with disabilities compared with girls, and older students held more negative attitudes towards peers with intellectual disabilities than towards those with physical disabilities. Age differences were evident with this manualised disability awareness programme that yielded a strong short-term effect for 5-6 years, but no effect for their counterparts aged 8-12 years.

The programme comprised two 45-minute sessions per week over a three week period, with a total duration of 4.5 hours (de Boer et al., 2014). Each week focused on a specific disability including physical, intellectual, and severe physical and intellectual. Sessions were designed age-appropriately and incorporated indirect contact via a story or a video about a peer with the relevant disability for that week. This was followed by group discussion and training in empathy and perspective taking via simulation activity. No direct contact with a peer with a disability was involved. Teacher feedback was sought and incorporated into the final programme design. This multi-session, multi-component programme, which was longer than three hours in duration, incorporated several of the attributes identified for an effective disability awareness programme.

A pre-post design with a one year follow-up was employed and student attitudes were assessed with the use of two age-appropriate instruments that measured both the affective and behavioural dimensions of attitude (de Boer et al., 2014). Attitude changes were also assessed based on participant age and gender, and the disability type of the peer featured in a series of three vignettes. While changes in levels of empathy and actual behaviour towards peers with a disability was not evaluated, De Boer and colleagues (2014) were the only researchers in the studies reviewed to include a measure of implementation fidelity. Teachers completed an evaluation, following the intervention, indicating how well they implemented the programme according to its design. Theories of attitude change and formation were also incorporated into the research. Attitude outcomes were highly variable based on the age of the participant, but in general this study was well-designed and presented robust research methods.

Unlike the compulsory school setting where the achievement of specific goals is expected, the camp setting by nature may provide a less competitive environment in which children can build awareness and foster inclusive attitudes towards peers with disabilities (Papaioannou, Evaggelinou, Barkoukis, & Block, 2013). Papaioannou and colleagues (2013) focused on the effects of a three week disability awareness programme on children's attitudes towards peers with disabilities in a non-inclusive camp setting. Participants were 387 campers (M age = 13.3 years) who were divided into an intervention group who took part in the awareness programme ($n = 197$) and a control group who attended the regular camp programme ($n = 190$). Significant improvements were found in both general PE and sport-specific attitudes for the intervention group, while scores for the control group remained unchanged. The 20-day programme yielded a medium effect for general PE attitudes ($d = 0.55$) and a large effect for sport-specific attitudes ($d = 1.62$). This study provided strong evidence that a manualised disability awareness programme, conducted in the less

competitive environment of a camp setting, can improve sport-specific attitudes towards peers with disabilities.

The 116 hour manualised programme comprised multiple components and a range of activities to build awareness of disability and the Special Olympic and Paralympic Games (Papaioannou et al., 2013). Programme components included training in empathy and perspective taking via simulation sport activities, information delivery via lectures, indirect contact via video presentations, group discussion, and art activities. Participant groups, of approximately 20 children, rotated through multiple activity sessions every day for 20 days. Each of the ten activity sessions were 35 minutes in length, and included sports such as Boccia, Sitting Volleyball, Bocce, Swimming, and Wheelchair Basketball. The highly structured programme benefited from the involvement of educational specialists in its design. While direct contact with peers with a disability was not incorporated, the programme achieved successful outcomes. It would appear that the duration and intensity of this intervention, despite the lack of direct contact, strongly contributed to its effects.

A quasi-experimental group pre-post design was employed with the use of a questionnaire to measure the change in attitudes of children towards the inclusion of peers with disabilities (Papaioannou et al., 2013). The questionnaire was deemed a valid, reliable, and age-appropriate instrument, but it did not incorporate items related to the emotional dimension of attitude. As with the majority of studies reviewed, the assessment of actual behaviour towards peers with a disability was ignored, and there was no measure of changes in levels of empathy. A key limitation of this study was the lack of follow-up to test whether its effects were enduring. There was also no measure of the fidelity of the programme implementation. One salient strength of this study was its inclusion of theory related to changing children's attitudes towards peers with disabilities. While this study suffered from several research method flaws, significant effects were demonstrated.

Studies of at least three hours duration, with direct contact. Sable (1995)

compared the effects of two programmes involving direct contact in a camp setting with a regular camp programme. Participants were boys aged 11-16 years, who were randomly assigned to the two intervention groups ($n = 36$) and the comparison group ($n = 30$). Post-test acceptance scores for both intervention groups showed significant improvements while the comparison group scores showed no change. Calculation of effect sizes showed a clear difference between the two interventions however, with a large effect for the manualised programme that included both direct contact and knowledge acquisition ($d = 1.06$), compared with a medium effect for the programme that included direct contact only ($d = 0.73$). Findings indicate that programmes comprising direct contact alone may not be as effective as programmes that incorporate multiple components including direct contact.

Each 15-hour intervention (Sable, 1995) was conducted over multiple sessions and incorporated direct contact with a peer with a disability, but programme content was significantly different. The inclusive adventure group participated in group initiative games and rope course activities with peers with severe physical impairments. Together they completed warm ups, trust walks and falls, group and individual challenges, and problem-solving for a variety of activities. The disability awareness group also spent two hours per day in one-to-one contact with a peer with a physical disability. In addition, the participants in this programme group received information about disabilities, conducted accessibility studies around the camp, and took part in simulation activities. Both interventions benefited from having recreation specialists and outdoor challenge instructors who played active roles as facilitators. While overall, each intervention was highly interactive, the disability awareness programme represented the more multi-component approach.

Attitudes of study participants were assessed via self-report methods using a pre-post research design (Sable, 1995). A questionnaire was administered immediately prior to, and

on the final day of the five day camp programme. The instrument used was valid and reliable, and included items that measured the emotional dimension of attitude; for example, “Kids who talk to themselves a lot are scary. I don’t like to be close to them.” However, improvements in the actual behaviour of children towards peers with disabilities could not be determined as this variable was not measured. Participants in this study were limited to boys so the positive effects of this intervention may not necessarily be found in girls. Further limitations of this study were once again a lack of follow-up data to assess whether improved attitudes were sustained, and a failure to measure fidelity of implementation. The direct contact programmes tested in this study were effective despite a number of limitations.

Xafopoulos, Kudláček, and Evaggelinou (2009) studied the effects of a Paralympic education programme designed to increase awareness of disability and sport-related issues. International school students ($n = 71$) participated, including 42 boys (M age = 11.3 years) and 29 girls (M age = 11.2 years). Results from a questionnaire showed no significant changes in general PE or sport-specific attitudes pre- to post-intervention for either boys or girls, however scores from an adjective checklist revealed improved attitudes for the girls only. The 4-hour programme yielded no effect, according to the questionnaire measure, on attitudes of participants towards the inclusion of peers with a disability in PE classes, but the second measure indicated a medium effect for girls ($d = 0.64$). Overall, study findings were mixed and suggested a possible gender effect.

“Paralympic School Day” was implemented in school facilities and involved training in empathy and perspective taking and direct contact with an adult athlete with a disability (Xafopoulos et al., 2009). Participants were divided into six groups and rotated into six 40-minute activities: 1) Paralympic sports, 2) sledge hockey, 3) wheelchair mobility, 4) wheelchair basketball, 5) meeting an athlete with a disability, and 6) bowls using a wheelchair. Session components included simulation sport and daily activity, information

sessions, a video, group discussion, and game demonstration. Programme length was longer than three hours but was implemented intensely over a single day. While the programme incorporated direct contact, a highly competent athlete may not have been a good representation of people with disabilities generally. Having contact with an untypical member of an out-group might be less likely to lead to an attitude change towards the out-group in general (Krahé & Altwasser, 2006). In addition, high levels of competition and challenge promoted in this programme may have compromised participants' willingness to adapt sporting rules to accommodate peers with disabilities.

Two valid, reliable, and age-appropriate instruments were employed in a pre-post design to measure participant attitudes (Xafopoulos et al., 2009). One assessed attitudes towards having a peer with a disability in PE, and modifying the rules to accommodate them. The other revealed a respondent's attitudes based on their choice of adjectives regarding a peer with a disability. Neither instrument specifically measured the emotional component of attitude. Actual behaviour towards peers with disabilities and changes in levels of empathy were not included as post-test measures, and no follow-up data was collected. Theory on changing attitudes was considered, including variables that may negatively influence attitudes, such as the competitive aspects of PE. Inconsistent results produced by the two instruments indicated possible issues with construct validity, and made it difficult to determine the true effect of this programme.

Marom and colleagues (2007) examined the effects of a manualised intervention to promote shared common goals and cooperation between children with and without disabilities. Participants were students aged 10-12 years ($n = 170$), including an intervention group ($n = 77$) and a control group ($n = 93$). The authors reported significantly improved scores for the intervention group while scores for the control group remained unchanged. Outcome measures for the intervention group yielded a medium effect for attitudes towards

($d = 0.74$), and level of confidence in interacting with ($d = 0.51$), children with disabilities. Findings lent support to those of Papaioannou et al. (2013) and Sable (1995) by suggesting that children may be more inclined to interact with peers with disabilities following an intervention that encourages shared activities in a non-competitive environment.

Several key components related to content and delivery were evident in the “Partners to Inclusion Programme” (Marom et al., 2007). The programme duration was longer than 3 hours comprising multiple sessions of 30-90 minutes over the course of one year. The mean number of sessions was $M = 17$. The programme was highly interactive via shared activities between children with and without disabilities, including sport, art, music and social games. Interaction was monitored by teachers, who facilitated the programme, and parents of both study participants and students with disabilities were also involved. Although the intervention included direct contact with peers with a disability, it did not consist of multiple components, as information delivery was the only other approach used. The programme was integrated into the school curriculum, however it did not involve the whole school. Successful outcomes were apparent based on many of the key components that were incorporated into this programme, however as participation was limited, not all students could benefit from its effects.

Changes in attitudes towards peers with disabilities were assessed using a pre-post group design (Marom et al., 2007). Changes in specific self-efficacy, or level of confidence in interacting with peers with disabilities were also measured. Valid, reliable, and age appropriate instruments were used at the start of the school year and following the final programme meeting, at the end of the year. The attitude measure included an emotional component, however it was not possible to say whether the likelihood of friendship formation between children with and without disabilities increased as there was no assessment of actual behaviour. Another key study limitation was the lack of follow-up data to examine whether

positive outcomes were enduring. Finally, the programme demonstrated poor treatment fidelity as the intensity and duration of the intervention differed greatly across participants (total hours ranging from 8.5 to 25.5). This poor treatment fidelity poses a potentially important confounder but was not explored in the reported statistical analyses. While this programme demonstrated promising results, study findings were undermined by some key research method limitations.

Rillotta and Nettelbeck (2007) investigated the effects of manualised programmes of different durations on children's attitudes towards peers with intellectual disabilities. Their retrospective study involved 259 current and past students from several schools. School 1 had students with intellectual disability and encouraged an inclusive learning environment. Each year it conducted disability training programmes of different durations based on the age of the students. Intervention groups comprised: G1) students who received 2.25 hours training (M age = 11.2 years, $n = 24$); G2) students who received 6 hours training (M age = 13.1 years, $n = 43$); and G3) past students who had received 7.5 hours training eight years prior (M age = 21.0 years, $n = 46$). Age-matched groups from demographically similar schools, which did not conduct disability training programmes, made up the controls for G1 (M age = 11.3 years, $n = 40$); and G2 (M age = 13.1 years, $n = 59$); and G3 (M age = 20.8 years, $n = 47$). Students in G2 and G3 had exposure to children with intellectual disability, while students in G1 did not. Significantly more positive attitude scores were shown post-intervention for past students and current students in the 6 hour programme, when compared with their respective control groups. Attitudes of students following the 2.25 hour programme however, were significantly lower than both students in the 6 hour programme and their control group. The shorter programme yielded a small negative effect ($d = -0.43$) when compared with its control group, while the 6 and 7.5-hour programmes showed medium to large effects ($d = 0.80$ and $d = 0.62$ respectively). Findings indicated that more

positive attitudes were enduring following programmes of longer duration, and when participants had previous exposure to peers with disabilities.

All three manualised disability awareness programmes involved direct contact with peers with intellectual disabilities, and were conducted over multiple sessions (Rillotta & Nettelbeck, 2007). The children with and without disabilities shared planned activities, such as craft, art, sports, and cooking. A guest speaker talked about inclusion within the school, and all participants had the opportunity to review their personal attitudes in a question and answer session. The programme designed for the slightly younger age group was less than three hours duration, while the older age groups participated in 6-hour and 7.5-hour programmes, which also incorporated indirect contact via videos, group discussion, and a class presentation. All programmes were integrated into the school curriculum, took a whole of school approach, and were highly interactive. The longer programmes however, comprised a greater number of components compared with the shorter programme. While all three programmes contained the key component of direct contact, it would appear that the effectiveness of the interventions was influenced by programme duration.

The posttest-only study design negated the opportunity to collect pre-existing attitude data prior to implementing the manualised programme. This included a failure to assess previous experience with people with intellectual disabilities. Post-test data was gathered with the use of a self-report measure, which was specifically designed for the study (Rillotta & Nettelbeck, 2007). The 31 item questionnaire was reported to have high internal consistency, however most items ignored the emotional dimension of attitude. A strength of this study was its incorporation of theory on attitude and attitude change, including contact theory. The evaluation of actual behaviour towards peers with intellectual disabilities would have greatly enhanced study validity. Rillotta and Nettelbeck (2007) reflected on the enduring attitudes of participants who had completed the programme eight years prior,

however the length of time that elapsed between this programme's implementation and the post-test represented a significant confound in relation to study findings. Moreover, the opportunistic collection of post-test only data may have comprised the validity of the results.

Moore and Nettelbeck (2013) designed a 3-hour disability awareness programme that included guest speakers with a disability. Male students ($n = 156$), aged 12 to 15 years participated, and were divided into two groups (programme and wait list control). Among them were 30 individuals categorised with either a disability or learning difficulty. Improved attitude scores were reported across two outcome measures for both groups post-intervention, and were maintained for the programme group at a one month follow-up. The programme produced small to medium effects sizes (ranging from $d = 0.49$ to $d = 0.64$) across the two intervention groups. Incorporating a guest speaker with a disability may have been a key component in the success of this manualised programme.

The programme was implemented over four weekly sessions of 45-minutes, and incorporated direct contact with an adult with a disability (Moore & Nettelbeck, 2013). Indirect contact was also a feature component, with students viewing videos of specific people with disabilities, and then taking part in structured discussion groups. Information delivery, via a PowerPoint presentation, and training in empathy and perspective taking via simulation activity were also included in the multi-component approach. Active engagement in the content of the programme was encouraged by the facilitators during discussions, and all school students in Years 7-9 had the opportunity to be involved in the programme. Several content and delivery related components, that have been identified as common to effective manualised interventions, were evident in this programme.

Student attitudes towards people with a disability were measured pre- and post-intervention, and at a one month follow-up (Moore & Nettelbeck, 2013). Two valid, reliable, and age-appropriate instruments which included measures of knowledge, and acceptance of

disability were used. One of the instruments included items that assessed the emotional component of attitude. The evaluation of changes in levels of empathy was once again overlooked, as was any measure of fidelity of programme implementation. Study participants were limited to boys so the positive effects of this intervention may not be exhibited in girls. This programme generated significant improvements in attitude, and by incorporating a follow-up measure, Moore and Nettelbeck (2013) were able to determine that these improvements were sustained over time.

Ison and colleagues (2010) investigated the effects of a disability awareness programme, which was co-facilitated by an adult with a disability. Students aged 9-11 years participated in the study ($n = 147$). Significant increases in mean scores for attitudes, knowledge and acceptance with regard to disability were reported following participation in the programme. Focus group findings suggested that interactive activities and having a facilitator with a disability were key factors in participant satisfaction and positive attitude change. The intervention yielded a large effect ($d = 0.86$), and provided additional support for involving an adult with a disability in the facilitation of manualised disability awareness programmes.

“Just Like You” was delivered over two 90-minute sessions and included multiple components (Ison et al., 2010). Aside from direct contact with people with a disability, training in empathy and perspective taking via simulation activities, information delivery, group discussion, written activities, and demonstrations were incorporated into the programme. The information component comprised types of disability, appropriate language regarding disability, and the use of sign language and Braille. Programme facilitators were staff members of a service centre that provides support to people with cerebral palsy and their families. One of the presenters at each session was a person with cerebral palsy. Most of the other presenters had a teaching background, and all had experience working with children.

The multi-component nature of this programme, including extended contact with an adult with a disability, is likely to have contributed to its significant effects.

A pre-post design was employed with a measure of attitudes, knowledge and acceptance of disability that was specifically designed for the study (Ison et al., 2010). Items related to the emotional dimension of attitude did not feature strongly in the measure. Open-ended programme evaluation questions were included in the post-test, and semi-structured interviews were carried out with qualitative focus groups ($n = 24$). Assessment of changes in levels of empathy and actual behaviour towards peers with a disability were overlooked, and follow-up data was not collected. There was also no assessment of the fidelity of programme implementation. In addition, while significant and promising results were reported, the use of a control group would have helped determine whether improvements were a direct result of the programme. Several limitations in this study's methodology may have compromised the validity of its findings.

In NZ, a manualised intervention developed by the United Nations is being delivered. "It's About Ability" (UNICEF, 2009) which was developed in conjunction with children with disabilities, is a multi-component programme designed to be delivered over 10 two-hour sessions. It comprises training in empathy and perspective taking via role-play, information delivery via the "It's About Ability" manual and learning guide, group discussion, small group activities, videos, drawing and hands-on activities, and a homework project. The information component focuses largely on human rights, and outlines the Convention on the Rights of Persons with Disabilities (CRPD). The homework assignment aims to encourage students to develop their own disability related project or become involved with a disability organisation as a way of gaining practical experience and insight. Direct contact with a person with a disability is a key component of the disability awareness training, with all facilitators of the program themselves having a disability.

“It’s About Ability” in a non-manualised form was studied in Montenegro (UNICEF, 2013b). The intervention which was designed to build public awareness regarding people with disabilities was found to significantly increase the number of children with impairments attending school. Adults aged 18 years or older ($n = 1207$) were involved in the study which showed a significant reduction in negative attitudes following the nationwide disability awareness campaign. People who believed that children with disabilities were better off in special institutions declined from 46% to 35%, and people who did not want a child with a disability in the same class as their child declined from 64% to 52%. There was also a significant increase in people who thought that children with disabilities were as equally valuable as other members of society, from 74% to 92%. “It’s About Ability” campaigns, implemented at a community level, may be successful in improving public attitudes towards children with disabilities, and may result in greater access to schooling for those children in developing countries.

The “It’s About Ability” campaign, which was launched by the government of Montenegro, consisted of multiple components including direct and indirect contact, and information delivery (UNICEF, 2013b). Children with disabilities spoke publicly at “It’s About Ability” events where the wider community was able to interact with them. Indirect contact involved a nationwide media campaign, including billboards and a TV commercial showing local children with disabilities as active members of society. The CRPD was printed in braille and made in sign language for the first time in the Balkans. While the “It’s About Ability” campaign achieved great coverage, due to a lack of manualisation, those involved in the study were not exposed to the intervention in a consistent and comparable manner.

Knowledge and attitudes were measured with a pre-post research design, that included a mid campaign assessment and a one year follow-up (UNICEF, 2013b). Participants responded to a face-to-face survey conducted via interview in their home.

Assessment of the emotional component of attitude was included, however the validity and reliability of the survey itself was not determined. Items related to respondents' behaviour towards children with disabilities were included, but assessment of actual behaviour was once again overlooked. The lack of manualisation of the "It's About Ability" intervention precluded the assessment of implementation fidelity. Several methodological features cited in successful studies of disability awareness programmes were apparent in this research, however a greater level of manualisation would have enhanced the study's evidence base, and allowed for easier dissemination of this intervention in similar environments.

Although no formal research study of "It's About Ability" in NZ has been published, results of an informal evaluation by a NGO delivering the programme have been shared (P. Walker, personal communication, April 15, 2015). In the evaluation, questionnaires were collected from 59 children aged 11-13 years, including 11 children who self-reported a disability. The brief questionnaire consisted of a mix of *Yes* or *No*, open-ended questions, and items that required participants to respond using a likert-style scale. In terms of knowledge, 90% of participants reported that they knew more about impairment or disability following the programme. Improved attitudes were also apparent, with participants on average reporting that they would feel more comfortable talking to a new student who used a wheelchair or took longer to learn and understand things. An additional positive effect was a 33% increase in participants who identified as having a disability at the end of the programme. This may have come about as a result of those children feeling an increased level of acceptance within the group. Increased acceptance may have been associated with having the facilitator with a disability discuss their personal stories with the children. The outcomes of this evaluation lend further support to the effectiveness of employing adults with disabilities to facilitate disability awareness programmes.

Summary. Table 2.1 provides a summary of the research studies identified that used manualised interventions for disability awareness. Studies are presented in the order in which they have been discussed, with brief notes on participants, setting, number of intervention sessions, session duration and schedule, programme facilitators, materials, delivery, and content. Studies were published between 1995 and 2014 with all but one study completed in the last decade. Four studies were carried out in Australia, and the remaining were conducted in the United States of America, Canada, France, Greece, Portugal, The Netherlands, Czech Republic, Israel, and Nigeria. All studies were written in English and published in peer-reviewed journals.

Table 2.2 provides a summary of the effectiveness of the manualised disability awareness interventions reviewed, and includes brief details regarding sample characteristics and setting, study design, variables measured, and instruments employed. Study samples consisted of school students, with average ages ranging from 10 to 15 years, from primary Year 5 to secondary Year 10. Sample sizes ranged between $n = 45$ and $n = 1509$, with the majority of interventions involving 170 participants or less. Most studies involved children in a school setting, however two studies involved children in a camp setting (i.e., Papaioannou et al., 2013; Sable, 1995). All studies measured changes in attitudes of children towards people with disabilities. The majority of studies examined attitudes towards either peers with physical disabilities or peers with disabilities generally. Two studies focused on attitudes towards people with mental illness (i.e., Bella-Awusah et al., 2014; Clarke et al., 2011). The most frequently used standardised instruments to measure attitudes were CATCH, employed in three studies (i.e., Godeau et al., 2010; Moore & Nettelbeck, 2013; Tavares, 2011), and the Children's Attitudes Towards Inclusion in Physical Education (CAIPE-R; Block, 1995), also used in three studies (i.e., Campos et al., 2014; Papaioannou et

Table 2.1. *Summary of Manualised Interventions for Disability Awareness*

Author, year, name (Country)	Target Audience/ Setting	# Sessions, session duration, schedule	Program facilitator/s	Programme components/ materials	Delivery	Content
Tavares, 2011 <i>Kids are Kids</i> (Canada)	School students/ Elementary school	1 session, 45 minutes	Social worker & educational consultant	<ul style="list-style-type: none"> • Discussion • Slides • Video • Resource package for teacher (for use post intervention) • Fiction books 	Viewed slide show with statements on how all kids are the same; viewed video; specific information provided; informal role-play	<ul style="list-style-type: none"> • Discussion re existing knowledge of classmate's disability (cerebral palsy); how all kids are the same • "Kids just want to have fun" video • Specific information and Q&A re classmate's disability • Brainstorming ways to be more socially inclusive of peer with a disability
Godeau et al., 2010 <i>School Curriculum Project</i> (France)	School students/ Secondary school	2 sessions, 60 minutes (2 hours total) as part of humanities curriculum	Humanities teachers	<ul style="list-style-type: none"> • Video • Discussion • Bibliography • Filmography • Project tasks 	Viewed video on life of adolescents with a disability; discussed human diversity and disability; worked on a disability related project	<ul style="list-style-type: none"> • The life of adolescents with a physical disability in an inclusive French school setting • Differences, disability and inclusion
Campos et al., 2014 <i>Adapted PE Week</i> (Portugal)	School students/ Middle & High school	2 PE sessions, 90 & 45 minutes, over 1 week (2.25 hours total)	Physical education teachers	<ul style="list-style-type: none"> • Information • Videos • Discussion • Simulation sport activity 	Information delivery; brief discussion; played each sport for 20 minutes	<ul style="list-style-type: none"> • Paralympics and Special Olympics movements • Paralympic sport TV • Explanation of adapted sport • Boccia (wheelchair) • Goalball (blind-folded) • Sitting volleyball • Wheelchair basketball

Author, year, name (Country)	Target Audience/ Setting	# Sessions, session duration, schedule	Program facilitator/s	Programme components/ materials	Delivery	Content
Clarke et al., 2011 <i>School-Based Educational Intervention</i> (Australia)	School students/ Primary school	2 sessions, 90 & 75 minutes, over 2 consecutive days (2.75 hours total)	Teacher consultant; First researcher	<ul style="list-style-type: none"> • Information • Role-play 	Information delivery; games; activities	<ul style="list-style-type: none"> • Introduction to mental illness • Definition and different types of mental illness • Causes of mental illness • Treatments for mental illness • Stigmatising attitudes
Bella-Awusah et al., 2014 <i>Mental Health Awareness Programme</i> (Nigeria)	School students/ Secondary school	1 session, 3 hours	Consultants in child and adolescent psychiatry	<ul style="list-style-type: none"> • Information • Discussion 	Small group brainstorming; large group discussion; key facts; case vignettes	<ul style="list-style-type: none"> • Language used to describe mental illness • Implications of language used • Media portrayal of mental illness • Evaluation of person views • Supporting peers & self • Maintaining good mental health
De Boer et al., 2014 <i>Special Friends</i> (The Netherlands)	School students/ Primary school	6 sessions, 45 minutes, 2/week (4.5 hours total)	Teachers	<ul style="list-style-type: none"> • Books • Videos • Discussion • Simulation activity • Teaching aids 	Explanation of a specific disability type; group discussion; participate in activity	<ul style="list-style-type: none"> • Explanation of physical, intellectual, and severe physical & intellectual disabilities • Impact of disability on daily life

Author, year, name (Country)	Target Audience/ Setting	# Sessions, session duration, schedule	Program facilitator/s	Programme components/ materials	Delivery	Content
Papaioannou et al., 2013 <i>Summer Camp Disability Awareness Programme</i> (Greece)	School students/ Summer camp	10 sessions/day for 20 days, 35 minutes (116 hours total)	University Professor; Postgraduate student; Undergraduate students	<ul style="list-style-type: none"> • Lectures • Discussion • Videos • Photographs • Simulation sport activity • Information & basic rules • Art activities 	10 subgroups of 20 children per group participated in each session, rotating to next session until the completion of all 10 sessions	<ul style="list-style-type: none"> • Human Rights • Special Olympic and Paralympic Games information • “Boccia” • Language related to disability • Volleyball sitting down • “Bocce” • Games related to accessibility • Swimming • “Wheelchair basketball” • Drawing (Paralympic and Special Olympic games, athletes, equipment)
Sable, 1995 <i>Disability Awareness Programme vs Adventure Programme (COPES)</i> (USA)	School students/ Summer camp	5 sessions, 3 hours/day for 5 days, (15 hours total)	CTRS	<ul style="list-style-type: none"> • Information • Simulation activities • Reading materials • Camp studies • Direct contact with peers with disabilities 	Information delivery; activities; accessibility studies; interaction with peers with disabilities	<ul style="list-style-type: none"> • Information regarding disabilities • Taking part in simulation activities • Information about accessibility • Camp accessibility studies • One-to-one interaction with a camper who has a physical disability (2 hours/day)
	School students/ Summer camp	5 sessions, 3 hours/day for 5 days, (15 hours total)	CTRS; COPES instructor; Support staff	<ul style="list-style-type: none"> • Group initiative games and rope course activities with peers with disabilities 	Warm-ups; trust walks and falls; group initiatives; low and high ropes course	<ul style="list-style-type: none"> • Group challenge activities • Individual tests of agility and skill level • Activities involving climbing, swinging jumping, balancing and abseiling • Problem-solving for physical activities

Author, year, name (Country)	Target Audience/ Setting	# Sessions, session duration, schedule	Program facilitator/s	Programme components/ materials	Delivery	Content
Xafopoulos et al., 2009 <i>Paralympic School Day</i> (Czech Republic)	School students/ International school	6 sessions, 40 minutes, 1 day (4 hours total)	Study authors; Teachers	<ul style="list-style-type: none"> • Video • Discussion • Simulation sport & daily activity • Information sessions • Demonstration • Athlete with a disability 	6 subgroups of 12 children per group participated in each session, rotating to next session until the completion of all 6 sessions	<ul style="list-style-type: none"> • Paralympic sports (rules, sport adaptations & sport equipment) • Sledge hockey • Wheelchair mobility • “Wheelchair basketball” • “Meet an athlete with a disability” • “Boccia”
Marom et al., 2007 <i>Partners to Inclusion Programme</i> (Israel)	School students/ Primary school	<i>M</i> sessions = 17, 30-90 minute sessions every 1-2 weeks (8.5-25.5 hours total)	Teachers; Teaching assistants; Parents of study participants; Parents of students with disabilities	<ul style="list-style-type: none"> • Information • Direct contact with peers with ID and physical disabilities 	Received information about specific disabilities; received general information about people with disabilities; interacted with peers with disabilities	<ul style="list-style-type: none"> • Specific information about ID and cerebral palsy • General information about people with disabilities • Joint activities including sport, music, art, and social games
Rillotta & Nettelbeck, 2007 <i>Awareness of Intellectual Disability Programme</i> (Australia)	School students/ Secondary school	3 sessions over 1 week, 45 minutes (2.25 hours total), 5 weeks prior to attitude measuring	Special education teachers; Class teachers	<ul style="list-style-type: none"> • Unit tour (Special educ) • Activities with peer with ID • Homework • Guest speaker • Summary questions 	Interaction with students with an ID; Reflection on feelings and Q&A	<ul style="list-style-type: none"> • “About Me” interaction • Sports/cooking activities • Homework re beliefs about students who have ID • Guest speaker talk re school’s inclusion programme • Summary questions re intervention experience
	School students/ Secondary school	8 sessions over 3 weeks, 45 minutes (6 hours total), 3	Special education staff; Religious	<ul style="list-style-type: none"> • Discussion • Class presentation by participants 	Researched knowledge about ID and made class presentation;	<ul style="list-style-type: none"> • Attitudes regarding peers with ID • Knowledge about ID • Awareness of peers with disabilities including ASD

Author, year, name (Country)	Target Audience/ Setting	# Sessions, session duration, schedule	Program facilitator/s	Programme components/ materials	Delivery	Content
		weeks prior to attitude measuring	education teachers	<ul style="list-style-type: none"> • Video • Guest speakers • Activities with peer with ID 	viewed video about people with disabilities; interacted with students with an ID; reviewed personal beliefs	<ul style="list-style-type: none"> • Course of study for students with ID • How having a child with ID affects family life • Sharing planned craft/art/sports/games/cooking activities • Personal beliefs re peers with ID
	School students/ Secondary school	10 sessions, 45 minutes (7.5 hours total), 8 years prior to attitude measuring	Special education staff; Religious education teachers; Class teachers;	<ul style="list-style-type: none"> • Discussion • Class presentation by participants • Videos • Guest speakers • Activities with peer with ID 	Researched knowledge about ID and made class presentation; viewed videos about people with disabilities; interacted with students with ID; reviewed personal beliefs	<ul style="list-style-type: none"> • Attitudes re peers with ID • Knowledge about ID • Awareness and perceptions of people with disabilities including autism and Down's syndrome • Course of study for students with ID • How having a child with ID affects family life • Sharing planned craft/art/sports/games/cooking activities • Personal beliefs re peers with ID
Moore & Nettelbeck, 2013 <i>Short-term Disability Awareness Training</i> (Australia)	School students/ High School	4 sessions, 45 minutes, 1/week (3 hours total)	Psychologist; People with Disability; Teachers	<ul style="list-style-type: none"> • PowerPoint • Discussion • Documentary movie • Videos • Guest speakers with disabilities • Simulation activity 	Viewed 15 min. video about a specific person with a disability; split into groups and used specific questions to discuss (30 minutes)	<ul style="list-style-type: none"> • "Its about Samuel" (age 15, cerebral palsy) video • Keith (activist with cerebral palsy) • Alana (teen with behavioural problems) • Nathaniel (younger boy with autism) • Specific questions

Author, year, name (Country)	Target Audience/ Setting	# Sessions, session duration, schedule	Program facilitator/s	Programme components/ materials	Delivery	Content
Ison et al., 2010 <i>Just like you</i> (Australia)	School students/ Primary school	2 sessions, 90 minutes, 1-2 weeks apart (3 hours total)	Staff members of The Spastic Centre incl. 1 with cerebral palsy; trained volunteer	<ul style="list-style-type: none"> • Information • Discussion • Written activities • Demonstrations • Simulation activity • Presenter with disability 	Received information; participated in various activities; interacted with a person with a disability	<ul style="list-style-type: none"> • Discussion re “different types of disabilities” • “Appropriate and inappropriate language use” re disability • “Communicating using Braille and Australian Sign Language” • Comprehension activities re “the experiences and achievements of Paralympians” • Simulation of “daily activities with a disability” • Q&A “sessions with person with a disability” • Demonstration and trialling of equipment used in daily life by people with disabilities
<i>It's About Ability</i> (NZ) [Informal Evaluation] P. Walker (personal communication, April 15, 2015)	School students/ Middle school	10 sessions, 120 minutes, (20 hours total)	People with a disability	<ul style="list-style-type: none"> • Information • Group discussion • Videos • Art activities • Role-play • Small group activities • Homework project • Facilitator with a disability 	Received information; watched videos; discussed topics in small groups and as a class; completed journals	<ul style="list-style-type: none"> • Disability and child protection • Human diversity and valuing difference • Human Rights • The Convention on the Rights of the child • The Convention on the Rights of Persons with disabilities • Models of Disability • Stereotypes and discrimination against people with a disability • Freedom from violence and abuse • Accessibility and Advocacy

Note. ID = intellectual disability; ASD = autism spectrum disorder; CTRS = Certified Therapeutic Recreation Specialist.

Table 2.2. *Effectiveness of Manualised Interventions for Disability Awareness*

Author, year, name (Country)	Sample characteristics/ Setting	Study design	Variables measured	Measures/Instruments	Results
Tavares, 2011 <i>Kids are Kids</i> (Canada)	12-13 year old students; School 1 ($n = 12$), Grade 6/7, 1 child with CP, present; School 2 ($n = 17$), Grade 7, 1 child with CP, present + 1 child with DS; School 3 ($n = 11$), Grade 7, 1 child with CP, not present & received social skills training + 1 child with autism; Comparison school ($n = 11$), Grade 6/7, no child with CP in target class but previous exposure/ Elementary school	Quasi-experimental group, pre-post design with 1 month follow up; 3 x intervention groups (each incl. child with CP) & comparison group	<ul style="list-style-type: none"> • Change in attitudes of study participants towards their peers with a physical disability • Change in level of social inclusion of children with physical disabilities 	<ul style="list-style-type: none"> • CATCH – self report measure of attitudes about disability; 36 items (incl 12 each of affective, behavioural & cognitive); score range 0-40 • Social interaction questionnaires to measure social inclusion; yes-no & short answer format (given to teacher & classmate with a disability) 	<ul style="list-style-type: none"> • CATCH scores for school 1: pre $M = 27.8$ ($se = 1.7$), post $M = 28.8$ ($se = 1.7$), F-up $M = 26.8$ ($se = 1.9$); school 2: pre $M = 24.6$ ($se = 1.4$), post $M = 26.7$ ($se = 1.4$), F-up $M = 24.8$ ($se = 1.6$); school 3: pre $M = 25.8$ ($se = 1.8$), post $M = 27.6$ ($se = 1.7$), F-up $M = 27.6$ ($se = 2.0$); comparison school: pre $M = 26.7$ ($se = 1.8$), post $M = 26.0$ ($se = 1.7$), F-up $M = 25.6$ ($se = 2.0$) • Signs of positive impact on social inclusion of 2/3 classmates with disability with most gains in child from school 3

Author, year, name (Country)	Sample characteristics/ Setting	Study design	Variables measured	Measures/Instruments	Results
Godeau et al., 2010 <i>School Curriculum Project</i> (France)	12-13 year old students; $N = 1509$ from 12 schools (6 with special educ units); Intervention group from 6 schools ($n = 895$), control group from 6 schools ($n = 614$); Grade 7/ Secondary school	Experimental group, randomised, pre-post design (4 months); intervention group & control group	<ul style="list-style-type: none"> • Change in attitudes of study participants towards their peers with a disability • Personal or environmental factors associated with attitude change 	<ul style="list-style-type: none"> • CATCH – self report measure of attitudes about disability; 36 items (incl 12 each of affective, behavioural & cognitive); score range 0-40 	<ul style="list-style-type: none"> • CATCH scores for intervention group: pre $M = 25.6$ ($sd = 5.4$), post $M = 26.8$ ($sd = 5.9$); control group: pre $M = 25.2$ ($sd = 5.4$), post $M = 26.0$ ($sd = 5.7$) • Significantly lower improvements in attitudes associated with participants' reporting no close friendships ($r = -2.6$, $se = 0.8$), and among participants from school with a special education unit ($r = -1.1$, $se = 0.4$)
Campos et al., 2014 <i>Adapted PE Week</i> (Portugal)	11-16 year old students ($n = 509$); 235 girls (M age = 13.2 years old), 274 boys (M age = 13.5 years old)/ Middle & High school	Quasi-experimental group, pre-post design (no control group)	<ul style="list-style-type: none"> • “Change in attitudes of study participants towards the inclusion of peers with physical disabilities” 	<ul style="list-style-type: none"> • CAIPE-R – self report measure of “attitudes towards inclusion of people with disabilities in physical education”; 13 items; 2 subscales (general attitude & sport-specific attitude); score range 13-52 	<ul style="list-style-type: none"> • CAIPE-R scores for intervention group: general PE attitudes pre $M = 19.0$ ($sd = 2.6$), post $M = 20.0$ ($sd = 2.6$), sport-specific attitudes pre $M = 17.5$ ($sd = 1.8$), post $M = 17.6$ ($sd = 2.2$), overall attitudes pre $M = 36.6$ ($sd = 3.6$), post $M = 37.7$ ($sd = 4.0$)

Author, year, name (Country)	Sample characteristics/ Setting	Study design	Variables measured	Measures/Instruments	Results
Clarke et al., 2011 <i>School-Based Educational Intervention</i> (Australia)	9-12 year old students ($n = 195$), Intervention group from 1 school ($n = 69$), control group from 4 schools ($n = 126$); Grades 5-6/ Primary school	Quasi-experimental group, pre-post design with 4 month follow up; intervention group & control group	• “Change in knowledge, attitudes, and social distance of study participants towards peers with mental illness”	• Separate self-report measures of “knowledge, attitudes (<i>Unkindliness & Benevolence</i>), and social distance towards peers with mental illness”; specifically designed for study	• Scores for intervention group: knowledge pre $M = 13.0$ ($sd = 2.5$), post $M = 14.9$ ($sd = 1.8$), F-up $M = 14.5$ ($sd = 2.0$), unkindliness pre $M = 56.6$ ($sd = 9.0$), post $M = 46.1$ ($sd = 9.4$), F-up $M = 48.3$ ($sd = 10.0$), benevolence pre $M = 59.4$ ($sd = 6.1$), post $M = 61.5$ ($sd = 7.0$), F-up $M = 61.2$ ($sd = 7.2$), social distance pre $M = 28.8$ ($sd = 7.2$), post $M = 25.7$ ($sd = 7.4$), F-up $M = 26.9$ ($sd = 6.7$); control group: knowledge pre $M = 13.5$ ($sd = 2.2$), post $M = 13.4$ ($sd = 2.4$), F-up $M = 13.3$ ($sd = 2.6$), unkindliness pre $M = 53.6$ ($sd = 8.9$), post $M = 51.4$ ($sd = 8.7$), F-up $M = 51.4$ ($sd = 8.2$), benevolence pre $M = 59.5$ ($sd = 5.8$), post $M = 58.4$ ($sd = 6.8$), F-up $M = 59.0$ ($sd = 6.6$), social distance pre $M = 27.3$ ($sd = 7.4$), post $M = 28.1$ ($sd = 7.8$), F-up $M = 28.7$ ($sd = 7.3$)
Bella-Awusah et al., 2014 <i>Mental Health Awareness Programme</i> (Nigeria)	10-18 year old students; Intervention group ($n = 78$; M age = 15.3 years old), control group ($n = 76$; M age = 14.3 years old), Yrs 8 & 10/ Secondary school	Quasi-experimental group, pre-post design with 6 month follow up; intervention group & control group	• “Change in knowledge, attitudes, and social distance of study participants towards people with mental illness”	• “Amended version of the UK Pinfold questionnaire - self report measure of knowledge, attitudes, and social distance towards people with mental illness”; 18 items total	• Scores for intervention group: knowledge pre $M = 9.7$ ($sd = 2.1$), post $M = 11.4$ ($sd = 2.0$), F-up $M = 11.3$ ($sd = 1.9$), attitude pre $M = 4.1$ ($sd = 1.4$), post $M = 3.6$ ($sd = 1.6$), F-up $M = 4.1$ ($sd = 1.7$), social distance pre $M = 3.1$ ($sd = 1.5$), post $M = 3.4$ ($sd = 1.8$), F-up $M = 3.6$ ($sd = 1.4$); control group: knowledge pre $M = 9.5$ ($sd = 2.1$), post $M = 9.5$ ($sd = 2.2$), F-up $M = 9.3$ ($sd = 2.7$), attitude pre $M = 4.1$ ($sd = 1.6$), post $M = 4.1$ ($sd = 1.7$), F-up $M = 4.2$ ($sd = 2.0$), social distance pre $M = 3.3$ ($sd = 1.6$), post $M = 3.1$ ($sd = 1.7$), F-up $M = 3.3$ ($sd = 1.7$)

Author, year, name (Country)	Sample characteristics/ Setting	Study design	Variables measured	Measures/Instruments	Results
De Boer et al., 2014 <i>Special Friends</i> (The Netherlands)	5-6 year old students, intervention group ($n = 22$), control group ($n = 31$), Grades 2-3/ Primary school; 8-12 year old students, intervention group ($n = 76$), control group ($n = 101$), Grades 5-8/ Intermediate school	Quasi-experimental group, pre-post design with 1 year follow up; intervention group & control group	<ul style="list-style-type: none"> Change in attitudes of study participants towards peers with physical and intellectual disability 	<ul style="list-style-type: none"> ASK-R - self report measure of attitudes about disability; 14 items (incl affective & behavioural); score range 0-28 (for 5-6 year old students) ASIE - self report measure of attitudes about disability; 14 items (incl affective & behavioural); score range 14-70 (for 8-12 year old students) 	<ul style="list-style-type: none"> ASK-R scores for intervention group 1: pre $M = 6.8$ ($sd = 6.2$), post $M = 14.0$ ($sd = 5.8$), F-up $M = 12.3$ ($sd = 6.1$); control group: pre $M = 8.5$ ($sd = 5.2$), post $M = 10.2$ ($sd = 6.7$), F-up $M = 12.9$ ($sd = 7.2$) ASIE-R scores for intervention group 1: pre $M = 3.6$ ($sd = 0.6$), post $M = 3.4$ ($sd = 0.6$), F-up $M = 3.5$ ($sd = 0.6$); control group: pre $M = 3.6$ ($sd = 0.5$), post $M = 3.6$ ($sd = 0.5$), F-up $M = 3.6$ ($sd = 0.6$)
Papaioannou et al., 2013 <i>Summer Camp Disability Awareness Programme</i> (Greece)	387 campers; M age = 13.3 years old; Intervention group ($n = 197$), control group ($n = 190$)/ Summer camp	Quasi-experimental group, pre-post design; intervention group & control group	<ul style="list-style-type: none"> “Change in attitudes of study participants towards the inclusion of peers with physical disabilities” 	<ul style="list-style-type: none"> CAIPE-R – self report measure of “attitudes towards inclusion of people with disabilities in physical education”; 13 items; 2 subscales (general attitude & sport-specific attitude); score range 13-52 	<ul style="list-style-type: none"> CAIPE-R scores for intervention group: general attitudes pre $M = 2.9$ ($sd = 0.3$), post $M = 3.1$ ($sd = 0.3$), sport-specific attitudes pre $M = 3.0$ ($sd = 0.6$), post $M = 3.7$ ($sd = 0.3$); control group: general attitudes pre $M = 2.7$ ($sd = 0.5$), post $M = 2.7$ ($sd = 0.3$), sport-specific attitudes pre $M = 3.1$ ($sd = 0.7$), post $M = 3.1$ ($sd = 0.7$)
Sable, 1995 <i>Disability Awareness Programme vs Adventure Programme (COPES)</i> (USA)	11-16 year old male campers; Intervention group ($n = 15$), comparison group with exposure to campers with physical disabilities ($n = 30$)/ Summer camp	Quasi-experimental group, pre-post design; intervention group & comparison group (randomly assigned)	<ul style="list-style-type: none"> “Change in attitudes of study participants towards people with a physical disability” 	<ul style="list-style-type: none"> “Acceptance Scale”; self-report measure of “attitudes towards peers with disabilities”, modified for a recreation setting; 23 items; 3-point scale 	<ul style="list-style-type: none"> Scores for intervention group: pre $M = 37.9$ ($sd = 5.4$), post $M = 42.7$ ($sd = 3.7$); comparison group: pre $M = 36.9$ ($sd = 5.0$), post $M = 38.0$ ($sd = 5.9$)

Author, year, name (Country)	Sample characteristics/ Setting	Study design	Variables measured	Measures/Instruments	Results
	11-16 year old male campers; Intervention group ($n = 21$), comparison group with exposure to campers with physical disabilities ($n = 30$)/ Summer camp	Quasi-experimental group, pre-post design; intervention group & comparison group (randomly assigned)	<ul style="list-style-type: none"> • “Change in attitudes of study participants towards people with a physical disability” 	<ul style="list-style-type: none"> • “Acceptance Scale”; self-report measure of “attitudes towards peers with disabilities”, modified for a recreation setting; 23 items; 3-point scale 	<ul style="list-style-type: none"> • Scores for intervention group: pre $M = 39.2$ ($sd = 6.6$), post $M = 43.2$ ($sd = 4.7$); comparison group: pre $M = 36.9$ ($sd = 5.0$), post $M = 38.0$ ($sd = 5.9$)
Xafopoulos et al., 2009 <i>Paralympic School Day</i> (Czech Republic)	71 school students (42 boys, M age = 11.3 years old; 29 girls, M age = 11.2 years old); Nationalities: Canada ($n = 8$), UK ($n = 6$), USA ($n = 5$), Korea ($n = 31$) & Czech Republic ($n = 21$)/ International school	Quasi-experimental group, pre-post design (no control group)	<ul style="list-style-type: none"> • “Change in attitudes of International school children towards the inclusion of peers with physical disabilities” 	<ul style="list-style-type: none"> • CAIPE-R – self report measure of “attitudes towards inclusion in physical education of people with disabilities”; 13 items; 2 subscales (general attitude & sport-specific attitude); score range 13-52 • Adjective checklist; 34 adjectives (17 positive & 17 negative) associated with child with a disability; score < 20 indicates negative attitude, score > 20 indicates positive attitude 	<ul style="list-style-type: none"> • CAIPE-R scores for boys: general attitudes pre $M = 18.3$ ($sd = 2.8$), post $M = 18.6$ ($sd = 2.6$), sport-specific attitudes pre $M = 16.4$ ($sd = 3.2$), post $M = 16.4$ ($sd = 3.7$); girls: general attitudes pre $M = 19.5$ ($sd = 0.8$), post $M = 19.2$ ($sd = 0.7$), sport-specific attitudes pre $M = 16.0$ ($sd = 3.4$), post $M = 15.3$ ($sd = 4.4$) • Adjective checklist scores for boys: pre $M = 24.4$ ($sd = 4.7$), post $M = 25.0$ ($sd = 4.7$); girls: pre $M = 23.5$ ($sd = 4.3$), post $M = 26.6$ ($sd = 5.5$)

Author, year, name (Country)	Sample characteristics/ Setting	Study design	Variables measured	Measures/Instruments	Results
Marom et al., 2007 <i>Partners to Inclusion Programme</i> (Israel)	170 school students; <i>M</i> age = 10.5 years old; Intervention group from 4 schools (<i>n</i> = 77), control group from 4 schools (<i>n</i> = 93); Grades 5-6/ Primary school	Quasi-experimental group, pre-post design; intervention group & control group	<ul style="list-style-type: none"> • Change in attitudes of study participants towards children with disabilities • Change in study participants' "specific self-efficacy for interacting with children with disabilities" 	<ul style="list-style-type: none"> • Questionnaire designed for study (based on Siller's measure); self-report measure of attitudes towards children with disabilities; 19 items; maximum possible score of 57 • "Children's Self-Efficacy Scale" (adapted) "to measure specific self-efficacy"; 18 items; maximum possible score of 54 	<ul style="list-style-type: none"> • Scores for intervention group: pre <i>M</i> = 2.3 (<i>sd</i> = 0.5), post <i>M</i> = 2.6 (<i>sd</i> = 0.3); control group: pre <i>M</i> = 2.1 (<i>sd</i> = 0.4), post <i>M</i> = 2.1 (<i>sd</i> = 0.4) • Scores for intervention group: pre <i>M</i> = 2.1 (<i>sd</i> = 0.5), post <i>M</i> = 2.3 (<i>sd</i> = 0.4); control group: pre <i>M</i> = 2.1 (<i>sd</i> = 0.4), post <i>M</i> = 2.0 (<i>sd</i> = 0.5)
Rillotta & Nettelbeck, 2007 <i>Awareness of Intellectual Disability Programme</i> (Australia)	64 school students; <i>M</i> age = 11.3 years old; Intervention group (<i>n</i> = 24), control group (<i>n</i> = 40); Yr 6/ Private co-ed secondary school	Quasi-experimental group, posttest-only design; intervention group & control group	<ul style="list-style-type: none"> • "Change in attitudes of study participants towards people with an intellectual disability" 	<ul style="list-style-type: none"> • "Attitudes Toward Persons with an Intellectual Disability Questionnaire" - self report measure; 31 items; score range 31-124 	<ul style="list-style-type: none"> • Score for intervention group: <i>M</i> = 91.7 (<i>sd</i> = 11.2); control group: <i>M</i> = 97.1 (<i>sd</i> = 13.8)
	102 school students; <i>M</i> age = 13.0 years old; Intervention group (<i>n</i> = 43) with exposure to 3 children with ID, control group (<i>n</i> = 59); Yr 8/ Private co-ed secondary school	Quasi-experimental group, posttest-only design; intervention group & control group	<ul style="list-style-type: none"> • "Change in attitudes of study participants towards people with an intellectual disability" 	<ul style="list-style-type: none"> • "Attitudes Toward Persons with an Intellectual Disability Questionnaire" - self report measure; 31 items; score range 31-124 	<ul style="list-style-type: none"> • Score for intervention group: <i>M</i> = 103.7 (<i>sd</i> = 8.7); control group: <i>M</i> = 95.6 (<i>sd</i> = 11.0)

Author, year, name (Country)	Sample characteristics/ Setting	Study design	Variables measured	Measures/Instruments	Results
	93 school students; <i>M</i> age = 12.9 years old; Intervention group (<i>n</i> = 46) with exposure to child with ID, control group (<i>n</i> = 47); Yr 8/ Private co-ed secondary school	Quasi-experimental group, posttest-only design; intervention group & control group	• “Change in attitudes of study participants towards people with an intellectual disability”	• “Attitudes Toward Persons with an Intellectual Disability Questionnaire” - self report measure; 31 items; score range 31-124	• Score for intervention group: <i>M</i> = 103.0 (<i>sd</i> = 8.6); control group: <i>M</i> = 97.4 (<i>sd</i> = 9.8)
Moore & Nettelbeck, 2013 <i>Short-term Disability Awareness Training</i> (Australia)	12-15 year old male high school students; <i>N</i> = 156 (incl. 30 with a disability/ Learning difficulty); Intervention group (<i>n</i> = 75), delayed intervention group (<i>n</i> = 81), Yrs 7-9/ High school	Quasi-experimental group, pre-post design with 1 month follow up; intervention group & delayed intervention group	• Change in attitudes, knowledge and acceptance of study participants towards people with a disability	• CATCH – self report measure of attitudes about disability; 36 items (incl 12 each of affective, behavioural & cognitive); score range 0-40 • “Just Like You” – self report measure of attitude, knowledge & acceptance of disability; 15 items; score range 0-50	• CATCH scores for intervention group 1: pre <i>M</i> = 27.3 (<i>sd</i> = 4.3), post <i>M</i> = 29.4 (<i>sd</i> = 4.4), F-up <i>M</i> = 28.8 (<i>sd</i> = 4.8); intervention group 2 (wait list): pre <i>M</i> = 28.1 (<i>sd</i> = 4.4), post <i>M</i> = 30.9 (<i>sd</i> = 4.6) • “Just Like You” scores for intervention group 1: pre <i>M</i> = 32.8 (<i>sd</i> = 4.8), post <i>M</i> = 35.1 (<i>sd</i> = 4.7), F-up <i>M</i> = 34.7 (<i>sd</i> = 5.0); intervention group 2 (wait list): pre <i>M</i> = 33.1 (<i>sd</i> = 4.4), post <i>M</i> = 35.6 (<i>sd</i> = 4.2)
Ison et al., 2010 <i>Just like you</i> (Australia)	9-11 year old school students; <i>N</i> = 147 (incl. 24 in focus group); Yr 5/ Primary school	Quasi-experimental group, pre-post design (no control group); mixed method intervention group (quant.) & focus group (qual.)	• Change in attitudes, knowledge and acceptance of study participants towards people with a disability	• Questionnaire specifically designed for study; self-report measure of attitudes, knowledge and acceptance of disability; 14 items; maximum possible score of 70	• Scores for intervention group: pre <i>M</i> = 49.9 (<i>sd</i> = 7.0), post <i>M</i> = 56.4 (<i>sd</i> = 8.3)

Author, year, name (Country)	Sample characteristics/ Setting	Study design	Variables measured	Measures/Instruments	Results
			<ul style="list-style-type: none"> Aspects of intervention most/least liked; most important thing learned; keenness for further learning re disability Focus group experience of, and feedback on the intervention; perceptions of people with disabilities 	<ul style="list-style-type: none"> Open-ended evaluation questions added to questionnaire post intervention Semi-structured questions re knowledge of, and attitudes towards disability, and views on the intervention 	<ul style="list-style-type: none"> Most liked: simulation activities (53%); most disliked: reading & writing activities (12%); most important thing learned: 'people with disabilities are just like us' (25%); 76% of respondents wanted to learn more re people with disabilities Knowledge of different types of disability increased; gained knowledge that people with disabilities were not unlike themselves; demonstrated more positive language re disabilities; felt more comfortable around, and wanted to learn more about, people with disabilities
<i>It's About Ability</i> (NZ) P. Walker (personal communication, April 15, 2015)	11-13 year old students ($n = 59$); including 11 with a disability; Yrs 7 and 8/ Middle school	Informal evaluation	<ul style="list-style-type: none"> "Change in knowledge and attitudes" of study participants towards peers with disabilities 	<ul style="list-style-type: none"> Questionnaire designed for study; self-report measure of knowledge and attitudes towards peers with disabilities; 8 items 	<ul style="list-style-type: none"> 90% of intervention group reported increased knowledge at post-test 6.3% increase in participant attitudes towards peers with physical disabilities 3.9% increase in participant attitudes towards peers with an intellectual/developmental/learning disability

Note. CP = cerebral palsy; DS = Down's syndrome; ID = intellectual disability; CAIPE-R = Children's Attitudes Towards Inclusion in Physical Education; ASK-R = The Acceptance Scale for Kindergarten-revised; ASIE = The Attitude Survey Towards Inclusive Education; CATCH = Chedoke McMaster's Attitudes Toward Children with Handicaps.

al., 2013; Xafopoulos et al., 2009). Results showed significant improvement in overall attitudes for 11 interventions within nine studies (i.e., Campos et al., 2014; Clarke et al., 2011; Ison et al., 2010; Marom et al., 2007; Moore & Nettelbeck, 2013; Papaioannou et al., 2013; Rillotta & Nettelbeck, 2007; Sable, 1995; Tavares, 2011).

Limitations and Effectiveness of Reviewed Manualised Disability Awareness

Programmes

Positive effects were shown in many of the studies reviewed, however limitations in methodology may have compromised the validity of findings. One factor that impacted on the quality of this review was the use of multiple and differing instruments to measure children's attitudes. Across the 13 studies, 13 different instruments were employed. Unlike previous reviews (Beelmann & Heinemann, 2014; Lindsay & Edwards, 2013), measures used were generally valid, reliable and age-appropriate, however many ignored the emotional component of attitude, focusing only on the cognitive and behavioural dimensions. The exceptions were those studies that employed CATCH and the Acceptance Scale, which assess all three components of attitude (i.e., Godeau et al., 2010; Moore & Nettelbeck, 2013; Sable, 1995; Tavares, 2011), and the Attitude Survey Towards Inclusive Education, which measures behavioural and emotional components (i.e., de Boer et al., 2014). Negative emotions toward an out-group are regarded as a significant risk factor in relation to intergroup contact and friendships (Riek, Mania, & Gaertner, 2006; Beelmann & Heinemann, 2014). Incorporating measures of the affective dimension of attitude is therefore critical to our understanding of how children's attitudes are influenced. Another limitation, also cited in previous reviews (Beelmann & Heinemann, 2014; Leigers & Myers, 2015), was the lack of assessment of actual behaviour post-intervention. It is generally assumed that improved attitudes will translate into improved behaviour (Moore & Nettelbeck, 2013). It was not possible to confirm this hypothesis however, as measures of actual behaviour towards peers with

disabilities were used in just one of the studies reviewed (i.e., Tavares, 2011). Measures showing improved behaviour, as well as attitudes, towards peers with disabilities may have corroborated positive effects for some of the manualised programmes.

Collection of follow-up data, the assessment of fidelity of programme implementation, and the use of theory to inform interventions were also overlooked in many of the studies reviewed. Follow-up measures are critical to determining whether changes detected are enduring. As found in previous evaluations (Beelmann & Heinemann, 2014; Leigers & Myers, 2015; Lindsay & Edwards, 2013), there was a lack of follow-up, with data collected in only six of the 13 studies (i.e., Bella-Awusah et al., 2014; Clarke et al., 2011; de Boer et al., 2014; Moore & Nettelbeck, 2013; Rillotta & Nettelbeck, 2007; Tavares, 2011). Another feature of a well-designed research study is the assessment of implementation quality to ensure accurate and consistent programme delivery. However, implementation fidelity was measured in just one of the studies reviewed (i.e., de Boer et al., 2014). Indeed, some research showed an obvious lack of treatment fidelity. For example, in Godeau and colleagues' (2010) study, the teachers who facilitated the 2-hour training programme were given great flexibility regarding its delivery. Potential for poor fidelity of implementation was evident in several studies and likely undermined the validity of findings. Furthermore, while recommendations have been made for intervention concepts to be more closely aligned with developmental research (Beelmann & Heinemann, 2014), the majority of studies lacked a theoretical framework to be tested by their findings. It is still unclear, for example, how stable attitudes are towards people with disabilities in middle childhood and early adolescence. Theories related to children's attitudes and attitude change were incorporated into just five studies (i.e., Clarke et al., 2011; Marom et al., 2007; Rillotta & Nettelbeck, 2007; Tavares, 2011; Xafopoulos et al., 2009). Designing manualised disability awareness

programmes, that incorporate developmental research and theory, may result in more positive outcomes.

Four further limitations are worthy of attention. Firstly, in four of the 14 evaluations, no control or comparison group was employed (i.e., Campos et al., 2014; Ison et al., 2010; P. Walker, personal communication, April 15, 2015; Xafopoulos et al., 2009). The use of a control or comparison group helps determine whether changes detected are as a direct result of the intervention itself, and not as a function of something else occurring in the environment. A lack of control or comparison in some studies compromised the validity of findings. Secondly, only four studies assessed prior contact of participants with people with disabilities (i.e., Campos et al., 2014; Clarke et al., 2011; Godeau et al., 2010; Moore & Nettelbeck, 2013), and frequency of contact with a person with a disability was measured in just one study (i.e., Rillotta & Nettelbeck, 2007). This was despite research indicating that previous contact with people with disabilities positively influences attitudes towards them (de Laat et al., 2013; Tonnsen & Hahn, 2015). Thirdly, programme satisfaction represents an important measure of social validity, however it was assessed in five studies only (i.e., de Boer et al., 2014; Godeau et al., 2010; Ison et al., 2010; Marom et al., 2007; Moore & Nettelbeck, 2013). Measures of programme satisfaction should ideally involve all participants including teachers, parents, and students with disabilities. Just two studies examined feedback from teachers (de Boer et al., 2014; Ison et al., 2010) and only one study evaluated the satisfaction of parents (Marom et al., 2007). Lastly, training in empathy and perspective-taking has been identified as an effective component in manualised interventions to improve children's inter-group attitudes (Beelmann & Heinemann, 2014). While empathy training was incorporated into the majority of programmes, changes in levels of empathy pre- to post-intervention were not investigated. This was unsatisfactory, as such a measure may have demonstrated an association between level of empathy and attitude towards peers with disabilities. It may

have also allowed the researcher to assess whether levels of empathy changed as a function of disability awareness training.

Varying levels of effectiveness were demonstrated in the manualised programmes reviewed. Significant improvement in overall attitudes towards people with disabilities was reported for 69% of interventions from published studies. This compared less favourably with the 88% of studies that achieved significant attitude improvements in Lindsay and Edwards' (2013) review of disability awareness programmes. The manualised interventions yielded overall effect sizes ranging between $d = -0.43$ and $d = 1.09$, with a mean effect ($d = 0.44$) similar to that reported by Beelmann and Heinemann (2014). Pre- to post-intervention change in overall attitudes showed a negative or nil mean effect in four studies (i.e., Bella-Awusah et al., 2014; de Boer et al., 2014; Rillotta & Nettelbeck, 2007; Xafopoulos et al., 2009). Among these, interventions examined by Bella-Awusah et al. (2014) and de Boer et al. (2014) did not involve direct contact with people with disabilities, and while Rillotta and Nettelbeck's (2007) programme did include direct contact, its duration was less than three hours. Small mean effects were evident for change in overall attitudes in three studies (i.e., Campos et al., 2014; Godeau et al., 2010; Tavares, 2011). None of the programmes examined by these researchers incorporated direct contact, and all were less than three hours in duration. Medium mean effects were produced in five studies (i.e., Clarke et al., 2011; Marom et al., 2007; Moore & Nettelbeck, 2013; Rillotta & Nettelbeck, 2007; Sable, 1995). The interventions in four out of five of these studies included direct contact, and were conducted over multiple sessions for a duration of at least three hours. Large mean effects were demonstrated by interventions in four studies (i.e., Ison et al, 2010; Papaioannou et al., 2013; Rillotta & Nettelbeck, 2007; Sable, 1995). Multiple components were included in all four interventions, and all programmes lasted for at least three hours. Papaioannou and colleagues' (2013) intervention was the only programme not to include direct contact,

however its duration of 116 hours may have compensated for the absence of this key component. Changes in knowledge regarding people with disabilities were measured, in addition to attitude outcomes, in two studies (Bella-Awusah et al., 2014; Clarke et al., 2011). Neither programme incorporated multiple components, and focused predominantly on information delivery. While both studies showed large effects for improved knowledge, overall attitude outcomes were mixed.

The intervention programmes were diverse in content, structure, and delivery, and featured many of the elements recommended for effective interventions (Beelmann & Heinemann, 2014; Leigers & Myers, 2015; Lindsay & Edwards, 2013). The diversity of approaches used made it difficult to determine which individual component contributed most to the outcomes being measured, however careful analysis of each intervention allowed the calculation of mean effect sizes for each of the key programme components. The largest effect ($d = 0.56$) was demonstrated by the use of direct intergroup contact. Direct contact with a person with a disability was incorporated into 59% of programmes (i.e., Ison et al., 2010; Marom et al., 2007; Moore & Nettelbeck, 2013; Rillotta & Nettelbeck, 2007; Sable, 1995; Xafopoulos et al., 2009; P. Walker, personal communication, April 15, 2015). Of these, six interventions involved direct contact with peers with disabilities ($d = 0.59$) and four involved direct contact with adults with disabilities ($d = 0.50$). The mean effect was slightly higher than that found in Beelmann and Heinemann's (2014) meta-analysis, however their findings were based on out-groups that included age and ethnicity, as well as disability. Training in empathy and perspective taking was included in 65% of programmes and yielded a small effect ($d = 0.44$). This component involved the provision of information on the etiology of disabilities (i.e., Clarke et al., 2011), the concepts of prejudice, stereotypes and discrimination (i.e., Bella-Awusah et al., 2014; P. Walker, personal communication, April 15, 2015), and the opportunity to experience what it might feel like to have a disability, through

simulation activities (i.e., Campos et al., 2014; de Boer et al., 2014; Ison et al., 2010; Moore & Nettelbeck, 2013; Papaioannou et al., 2013; Sable, 1995; Xafopoulos et al., 2009).

Children were also encouraged to consider and understand perspectives other than their own (i.e., Tavares, 2011). The mean effect was marginally lower than that found by Beelmann and Heinemann (2014), however again their review was not restricted to interventions focused on attitudes towards people with disabilities. Group discussion was a common component in the current review, featuring in 71% of programmes (i.e., Bella-Awusah et al., 2014; Campos et al., 2014; de Boer et al., 2014; Godeau et al., 2010; Ison et al., 2010; Moore & Nettelbeck, 2013; Papaioannou et al., 2013; Rillotta & Nettelbeck, 2007; Tavares, 2011; Xafopoulos et al., 2009; P. Walker, personal communication, April 15, 2015). Group discussion also produced a small effect ($d = 0.38$), however programmes which did not include group discussion yielded a greater effect ($d = 0.57$). This result lends support for Beelmann and Heinemann's (2014) finding that interpersonal communication and the sharing of information and ideas in small groups had a negative influence on outcomes.

Significant mean effects were also evident for programmes that had a duration of at least three hours, included multiple sessions, and incorporated multiple components. These results lent support to similar findings in previous reviews (Beelmann & Heinemann, 2014; Leigers & Myers, 2015; Lindsay & Edwards, 2013). Programme duration of greater than or equal to three hours yielded a medium effect ($d = 0.54$). While programmes ranged from 45 minutes (i.e., Tavares, 2011) to 116 hours (i.e., Papaioannou et al., 2013), 71% of interventions were at least three hours (i.e., Bella-Awusah et al., 2014; de Boer et al., 2014; Ison et al., 2010; Marom et al., 2007; Moore & Nettelbeck, 2013; Papaioannou et al., 2013; Rillotta & Nettelbeck, 2007; Sable, 1995; Xafopoulos et al., 2009; P. Walker, personal communication, April 15, 2015). Programmes that were conducted over multiple, or more than two sessions also generated a medium effect ($d = 0.50$). The number of sessions was

broad in range from one single session (i.e., Tavares, 2011) to 200 sessions (i.e., Papaioannou et al., 2013), with 65% of programmes conducted over multiple sessions (i.e., de Boer et al., 2014; Marom et al., 2007; Moore & Nettelbeck, 2013; Papaioannou et al., 2013; Rillotta & Nettelbeck, 2007; Sable, 1995; Xafopoulos et al., 2009; P. Walker, personal communication, April 15, 2015). Programmes that incorporated multiple, or more than two components produced a small effect ($d = 0.43$). Multiple components were used in 77% of interventions (i.e., Campos et al., 2014; de Boer et al., 2014; Godeau et al., 2010; Ison et al., 2010; Moore & Nettelbeck, 2013; Papaioannou et al., 2013; Rillotta & Nettelbeck, 2007; Sable, 1995; Tavares, 2011; Xafopoulos et al., 2009; P. Walker, personal communication, April 15, 2015), with the majority of programmes including a combination of information delivery and intergroup contact.

Additional elements recommended in relation to programme implementation and development (Beelmann & Heinemann, 2014; Lindsay & Edwards, 2013) were also analysed. The integration of programmes into the school curriculum occurred in 71% of interventions (i.e., Bella-Awusah et al., 2014; Campos et al., 2014; Clarke et al., 2011; de Boer et al., 2014; Godeau et al., 2010; Ison et al., 2010; Marom et al., 2007; Moore & Nettelbeck, 2013; Rillotta & Nettelbeck, 2007; P. Walker, personal communication, April 15, 2015), and generated a small mean effect ($d = 0.34$). However, programmes that were not integrated into the curriculum yielded a much greater effect ($d = 0.65$). It has been recommended that programmes be delivered in an interactive manner, with the active engagement of all participants (Beelmann & Heinemann, 2014; Lindsay & Edwards, 2013). Information on the interactive nature of each of the programmes was sparse however, making it difficult to measure the effectiveness of this variable. Lack of this type of programme detail represented a limitation in many of the studies reviewed. Finally, programme development that involved healthcare providers, teachers, and children with disabilities was

also recommended (Lindsay & Edwards, 2013). Again, details regarding specifically who was involved in the development of programmes were not forthcoming, but it appeared that children with disabilities were involved in just one evaluation (i.e., P. Walker, personal communication, April 15, 2015).

Overall findings indicate that it is possible to promote positive attitudes towards peers with disabilities among children with manualised disability awareness interventions. Based on the analysis of the programmes reviewed, interventions which incorporated direct intergroup contact and empathy training yielded the highest effect sizes. However, programme intensity and duration was found to moderate the influence of these programme components on intervention effects. In summary, disability awareness programmes that consisted of multiple sessions and a duration of at least three hours, and that involved direct intergroup contact in a cooperative environment showed the strongest intervention effects.

Research Questions

The primary aim of the present study was to evaluate the effects of “It’s About Ability” (UNICEF, 2009), a manualised disability awareness programme currently being delivered in NZ, on the attitudes and empathy of children towards peers with a disability. Based on the existing research on manualised disability awareness interventions, it was hypothesized that students who participated in the “It’s About Ability” programme would show more positive attitudes towards peers with a disability, compared with students who did not participate in the programme. A key limitation, identified in the extant research on affecting change in children’s attitudes towards peers with disabilities, was a failure to measure empathy as a key psychological construct related to attitude. This was despite the large number of interventions that incorporated empathy training. A secondary aim of the present study was to examine children’s empathy in association with attitudes towards peers with a disability. The research questions that directed the present study were specifically:

1. What are the effects of “It’s About Ability”, a manualised disability awareness programme, on the empathy and attitudes of children aged 11 to 13 years old?
2. What is the relationship between children’s empathy and attitudes towards peers with disabilities?

Rationale for the Present Study

A review of the literature has shown that while it is possible to positively influence children’s attitudes towards peers with disabilities with the use of manualised disability awareness interventions, not all programmes have achieved successful outcomes. “It’s About Ability” has been implemented locally, and a formal evaluation of its effects is important for the NZ context. Study results will provide insight into how this existing manualised programme may be modified in order to affect more positive attitudes towards peers with disabilities. With more positive attitudes, students with disabilities will find school a more equitable and welcoming place to be. Findings from the present study also have the potential to influence current approaches taken by governments and educators, by informing best practice in relation to disability awareness programmes.

Several limitations, that have been cited in the existing literature on manualised disability awareness programmes, are addressed in the present study. Changes in attitude will be assessed with a measure that includes the affective dimension of attitude, a component regularly neglected in previous studies. A measure of empathy will also be incorporated to examine the effects of “It’s About Ability” on this socio-cognitive ability. Follow-up data will be collected to determine whether changes detected are enduring, and fidelity of programme implementation will be assessed with facilitator checklists. In addition, programme satisfaction will be measured via student and teacher evaluations, and data on participants’ previous experience with people with disabilities will be collected and analysed to determine its influence on attitudes. The present study aims to evaluate an existing

manualised disability awareness programme, whose effects are yet to be independently assessed. It also aims to contribute to the existing research by shedding light on the association between empathy and attitude towards people with disabilities in a pre-adolescent population.

Chapter 3: Methods

This chapter outlines the design of the research in terms of methodology and methods. Following the STrengthening the Reporting of OBservational studies in Epidemiology (STROBE) guidelines (<http://www.strobe-statement.org>), each component is described separately in turn. The chapter begins by discussing the ethical considerations related to each phase of the research.

Ethics

Ethical approval for this study was sought and obtained from the University of Canterbury's Educational Research Human Ethics Committee (see Appendix A). Approval was also obtained from CCS Disability Action, Canterbury West Coast, who facilitated the "It's About Ability" programme and provided funding for the research project (see Appendix B). Signed consent of school principals, boards of trustees, teachers, parents/caregivers, students, and lead programme facilitators was required for the study to proceed (see Appendix C). Each party was provided with an information sheet (see Appendix D) outlining the study, and was given the opportunity to ask questions or raise concerns at any time. Study participation was voluntary and any student, parent/caregiver, teacher, school, or lead programme facilitator was free to withdraw from the study at any time without penalty. If withdrawal of a student from the study occurred, every effort was made by the researcher to remove and destroy all data collected in relation to that student. The identity of each participant and school was kept confidential with all data stored securely in password protected electronic files and locked storage at the University of Canterbury. Data collected directly from CCS Disability Action regarding student surveys, teacher evaluations, facilitator checklists, and programme attendance records were treated with the same level of confidentiality. School principals, boards of trustees, and teachers were advised that they would receive a report on the study findings by post following completion of the study.

Parents/caregivers, students, and lead programme facilitators were given the opportunity to provide their email address should they wish to receive a report on the findings of the study. Contact details for the Educational Research Human Ethics Committee were also made available should any party wish to make a complaint regarding the study.

Study Design

This study comprised a quantitative nonequivalent waitlisted pretest-posttest intervention study, with follow-up of the intervention group. Attitudes and empathy of the intervention group were measured at three time points: at baseline, prior to the intervention (T0), immediately following the intervention (T1), and at a 9-week follow-up (T2). Attitudes and empathy of the waitlist control group were measured at T0 and T1 only. In this non-randomised school cluster design, participants were allocated to either the intervention group or the waitlist control group based on the school they attended. This design was selected in an effort to reduce programme contamination between intervention and control classes. The first school to receive the disability awareness programme formed the intervention group.

Target Population and Setting

The study population was drawn from students, aged 11-13 years, who attended schools within Christchurch. Participants attended two state funded intermediate schools, from eight such schools in the city. In NZ, state intermediate schools comprise the last two years of primary school, and provide a bridge to the next stage of secondary or high school. State schools are funded based on a “decile rating”, which reflects the socio-economic status of their local community. Deciles range from one to ten, with lower deciles receiving more funding. In this study the intervention school was rated decile six and the waitlist control school was rated decile eight.

Selection criteria. All students from three Year 8 classes at the intervention school and one Year 7 class from the waitlist control school were eligible to participate in the study

($n = 119$). Students who had poor comprehension of English were not eligible to participate, and students who did not sign a student consent form or return a signed parent consent form were excluded from the study. Participation in the study was voluntary and students were free to withdraw at any time.

Instruments and Measures

Student questionnaire. A pencil and paper questionnaire, designed specifically for this study, used items from existing instruments to assess children's empathy and attitudes towards peers with a disability. The 29 item pre-test questionnaire (see Appendix E) comprised seven demographic and disability questions, seven items from the revised and shortened version of the CATCH (Bossaert & Petry, 2013) and 15 items from the Children's Empathic Attitudes Questionnaire (CEAQ; Funk, Fox, Chan, & Curtiss, 2008). The 22 items from the revised and shortened CATCH and the CEAQ were arranged in random order. Post-test and follow-up questionnaires (see Appendix F) excluded demographic and disability questions.

Demographic and disability questions. There were seven demographic and disability questions which related to the participant's gender, age, ethnicity, whether the participant themselves (i.e., "Do you have a disability?"), their friend (i.e., "Do you have a *friend* with a disability?"), or a family member or relative has a disability (i.e., Do you have a *family member* or *relative* with a disability?), and whether they had had contact with a person with a disability in the last week (i.e., Have you had *contact* with a person with a disability in the last week?). Pre- and posttest questionnaires were piloted on a class of 29 students aged 11-13 years who attended a rural intermediate school in Canterbury. The length and composition of the questionnaire was found to be appropriate for children in this age group, and all students in the pilot completed it without difficulty. As a consequence, no changes were made to the questionnaire.

Measurement of attitude. This study employed a revised and abbreviated version of the CATCH scale. The original CATCH (Rosenbaum et al., 1986) is based on the three-component model of attitudes towards peers with a disability. The 36-item scale includes 12 items for each of the three affective, behavioural, and cognitive domains. Affective items involve statements about feelings toward a peer with a disability; for example, “I wouldn’t worry if a handicapped child sat next to me in class.” Behavioural items measure the intention to interact with a peer with a disability; for example, “I would talk to a handicapped child I didn’t know.” Cognitive items involve statements regarding beliefs about peers with a disability; for example, “Handicapped children don’t have much fun.” An equal number of the 36 items are positively and negatively worded, with each scored on a 5 point Likert scale ranging from 0 (*strongly disagree*) to 4 (*strongly agree*). Negatively worded items are reversed scored and total scores are calculated by summing the item scores, dividing by 36 and multiplying by 10. Total scores range between 0 and 40, with a higher score indicating a more positive attitude towards peers with a disability. The CATCH scale was originally designed for children aged 9-13 years and has been used to measure attitudes in children as old as 16 years (Vignes et al., 2008). The instrument has demonstrated strong psychometric properties with excellent internal consistency reliability ($\alpha = .90$) and test-retest reliability (Rosenbaum et al., 1986; Vignes et al., 2008).

More recently, Bossaert and Petry (2013) evaluated and cross-validated the factor structure of the individual CATCH items in a large sample of 7th grade Flemish students ($n = 2396$). Participants were boys ($n = 1348$) and girls ($n = 1048$) aged between 10 and 15 years, and included 179 students with a formally diagnosed disability. In each of the school classes that participated in the study, there was at least one student with a disability. The CATCH scale’s stability was tested across gender, disability status, having a friend with a disability, and knowledge of the disability status of classmates. Strict factorial invariance was obtained

across these variables. Bossaert and Petry's (2013) confirmatory factor analysis supported a single subscale instead of the originally proposed three subscales. Kaiser's criterion suggested a one-factor solution, which explained 51% of the variance. The single factor included five items from the original CATCH affective scale (i.e., "I would like having a handicapped child live next door to me", "I would be happy to have a handicapped child for a special friend", "I would be pleased if a handicapped child invited me to his house", "I would feel good doing a school project with a handicapped child", and "I would enjoy being with a handicapped child"), and two items from the original CATCH behavioural scale (i.e., "I would invite a handicapped child to sleep over at my house" and "I would tell my secrets to a handicapped child"). The original CATCH cognitive items were not found to sufficiently relate to the overall attitude measure, and were excluded (Bossaert & Petry, 2013). The shortened single factor scale demonstrated strong internal consistency reliability ($\alpha = .88$). The fact that the revised single factor scale comprises all positive statements relating to only affective and behavioural components may reflect a change in attitudes towards disability since the original study conducted by Rosenbaum and colleagues some 30 years ago. Cultural differences in the study samples used may have also impacted a change. Due to its brevity and the better matching age of the study sample used ($M = 13.1$ years), the seven items of the shortened version of the CATCH scale were used in the questionnaire for this study. Minor revisions were made to the language to reflect more up to date terminology (e.g., "handicapped child" was changed to "kid with a disability"). Total scores were calculated by summing the item scores, dividing by seven and multiplying by 10. As with the original CATCH scale, total scores ranged between 0 and 40, with a higher score indicating a more positive attitude towards peers with a disability.

Measurement of empathy. This study employed the CEAQ; a self-report measure of empathic attitudes designed for children in later primary school years and early adolescence.

The instrument is based on the general understanding that empathic attitudes are changeable knowledge structures that influence behaviour, and are quantifiable (Eisenberg et al., 1999; Eisenberg, Cumberland, Guthrie, Murphy, & Shepard, 2005). The CEAQ was originally developed to identify child and adolescent populations at risk of anti-social behaviour. It was analysed on a sample of students in grades 5-7 ($n = 213$). For this study, the final 16-item version of the CEAQ was used with the exclusion of item 10 (i.e., “It’s easy for me to tell when my mom or dad has a good day at work”). Funk et al. (2008) recommended the omission of item 10 as it resulted in increased person reliability to .77. Internal consistency reliability for the study was also reported as moderate ($\alpha = .77$). As with the final version of the CEAQ, participants in the present study responded to each item on a 3-point scale (0, 1, or 2; *No*, *Maybe*, and *Yes*). Total scores for the CEAQ items were calculated by summing the scores for each item. Scores ranged from 0 to 30, with higher scores indicating higher empathy.

Student survey. Pre- and post-programme student survey forms were developed by CCS Disability Action for the current study. The pre-programme student survey (Participant Evaluation 1; Appendix G) consisted of eight items including five *Yes* or *No* and open-ended questions, one item that required participants to draw a picture of a person with a disability, and two items that required participants to respond using a likert-style scale. Students were required to respond on an 11-point Likert scale ranging from 0 (*very uncomfortable*) to 10 (*very comfortable*) to the questions: “how comfortable would you feel to talk to a new student in your class who uses a wheelchair?” and “how comfortable would you feel to talk to a new student in your class who takes longer to learn and understand things?” The post-programme student survey (Participant Evaluation 2; Appendix H) consisted of 10 items including six *Yes* or *No* and open-ended questions, one item that required participants to draw a picture of a person with a disability, the same two items that required participants to respond using a

likert-style scale, and an item asking participants to rate their experience of the “It’s About Ability” programme. The three rating response options included: “I got a lot out of the sessions”, “I learned a little”, and “I didn’t learn much”. The researcher had access to the pre- and post-programme student survey forms once they had been completed.

Teacher evaluation. A post-programme teacher evaluation form (see Appendix I) was developed by CCS Disability Action for the current study. It comprised eight items including six *Yes* or *No* and open-ended questions, and two items that required participants to respond using a likert-style scale. Teachers were required to respond on an 11-point numerical rating scale to the questions: “have children in your class showed a change in attitude towards disability since being involved with It’s About Ability?” and “are they more aware of human rights and the rights of children with disability?” The researcher had access to the completed teacher evaluations, which served as a measure of social validity and provided feedback regarding the programme.

Fidelity measure. A measure of fidelity of programme implementation was developed specifically for the study in the form of a facilitator checklist (see Appendix J). A checklist was created for each of the 10 programme sessions, and included a checkbox for each major item of content. It required the facilitator to note the start time, finish time, and number of students in attendance. Also included were sections to add specific notes regarding the session, as well as any major additions to, or deviations from, the set programme.

Programme attendance records. A programme attendance sheet (see Appendix K) was created for each of the three intervention classes, which comprised a simple matrix outlining the 10 weeks of the programme and the names of all participating students. Student attendance was recorded at each weekly session of the programme by the relevant classroom teacher.

Procedure

Recruitment. CCS Disability Action approached a number of intermediate and secondary schools in Christchurch, offering to deliver the “It’s About Ability” programme to their students. Following some initial interest from eight schools, two schools agreed to run the programme. Information sheets and consent forms were distributed to the school principals and boards of trustees, and permission was sought to invite students and teachers from a combined total of four classes to participate in the study. Once obtained, separate information sheets and consent forms for students and their parent/caregiver were distributed by the classroom teachers. A transmittal letter from the student’s teacher, encouraging participation in the study, was included (see Appendix L). Information sheets and consent forms were also distributed to the participating teachers. Students from three Year 8 classes, who were to receive the programme in term 3 of the school year, were assigned to the intervention group. One of the three classes in the intervention group was described as an “extension class.” According to the school management, this class consisted largely of children who had been identified as high academic achievers. The waitlist control group comprised a single Year 7 class at the second school, who were to receive the programme later in the school year.

Disability awareness programme (“It’s About Ability”) and delivery. The manualised disability awareness programme, “It’s About Ability”, consisted of ten weekly sessions, each 105 minutes duration. Session content was drawn from the “It’s About Ability” learning guide (UNICEF, 2009) and included direct contact with an adult with a disability, training in empathy and perspective taking via role play and the concepts of prejudice, stereotypes and discrimination, group discussion, videos, drawing and hands-on activities, and a homework project. Table 3.1 provides a summary of the five units of content delivered over the ten sessions. Sessions were run during regular school time, and made up

core curriculum related to human rights. Each participant receives a total of 17.5 hours training. The programme was delivered by trained facilitators contracted to CCS Disability Action Canterbury West Coast. Each session was delivered by a lead and secondary facilitator. All lead facilitators had received a total of 13 hours training related to the “It’s About Ability” programme. One of the key components of the intervention was that all facilitators themselves had a disability. The impairments of the facilitators were both

Table 3.1. *“It’s About Ability” Disability Awareness Programme Content*

Unit no	Unit	Themes	Content
I	Introduction to human rights and disability	Human Diversity and human rights United Nations Convention of the Rights of Persons with Disabilities	<ul style="list-style-type: none"> • Valuing differences • What are human rights? • Diagrams illustrating the interdependence of rights • Social model of disability
II	Respect for the individual	Equality and non-discrimination Freedom from violence and abuse Home and family	<ul style="list-style-type: none"> • Discrimination • Myths and stereotypes • Respect • Equal inclusion • Safety • Violence and abuse • Freeze! Stopping violence and abuse • Right to home and family • Family support
III	Inclusion in the community	Accessibility and independent living Education	<ul style="list-style-type: none"> • Project access • Independent living tree • Reaching for the stars • Bullies • Our class
IV	Change in society	Advocacy and action	<ul style="list-style-type: none"> • Raising awareness • What is an advocate? • Action planning
V	Feedback on the programme		

Note. From “It’s About Ability: Learning guide on the convention on the rights of persons with disabilities” by UNICEF, 2009, p. 1.

cognitive and physical, and included speech impairments, cerebral palsy, and a form of macular degeneration known as Stargardts Disease.

Data collection. Data collection dates were negotiated with the staff and management of each school, and questionnaires were administered to students in their respective classrooms. The pre-test questionnaire was administered during the first week of the school term, one day prior to the first session of the programme. The post-test was administered in the final week of the school term, one day after the final session of the programme. Pre-test and post-test questionnaires were administered to the waitlist control group during the same weeks as they were administered to the intervention group. The follow-up questionnaire was administered to the intervention group only, nine weeks after the programme completion. Questionnaires were administered by the researcher with the assistance of the classroom teacher. Standardised instructions (see Appendix M) were verbally delivered at each questionnaire administration to the students to minimise error, and help ensure fidelity of implementation. Students were assisted when necessary by the researcher with comprehension of the questionnaire items. Students took between five and ten minutes to complete the questionnaire.

In addition to the questionnaires administered by the researcher, students in the intervention group completed the CCS Disability Action pre- and post-test student surveys, which were distributed by the lead facilitators at the first and last programme sessions. Teachers in the intervention group also completed written evaluations, that were provided to them by the lead facilitators at the final session. At the completion of each session, lead facilitators completed the facilitator checklist for that session. Checklists for sessions were accumulated by the lead facilitator over the course of the programme and forwarded to the programme director on completion of the final session. A class list of students participating in the programme was issued to each classroom teacher at the first session by the lead

facilitator. Teachers recorded both partial and full attendance of students at each session. The completed programme attendance record was collected from each of the classroom teachers following the final session. The researcher collected all student surveys, teacher evaluations, facilitator checklists, and programme attendance records from the programme director approximately one month following the programme completion.

Data Summarisation and Analysis

Descriptive statistics (M , SD , and correlations) were used to summarise the data. Independent group t -tests were carried out to identify any differences between the groups at T0, based on age, sex, ethnicity, disability status, and contact with a people with disabilities. One-way ANCOVAs, accounting for class clusters, were conducted to measure changes in participants' empathy and attitude, adjusting for baseline scores (Barnett, Van Der Pols, & Dobson, 2015). Differences in attitude and empathy scores from T0 to T1 for the intervention group total and sub-groups were assessed using paired t -tests. Effect sizes were calculated (Cohen, 1988), according to Thalheimer and Cook's (2002) simplified method, to estimate the extent of the changes in attitude and empathy from T0 to T1 for the intervention group. Effect sizes were also calculated for the control group to determine whether changes over time were a result of the intervention itself. Regression analyses, accounting for class clusters, were carried out to identify relationships between post-test CATCH and CEAQ scores and the primary variables of age, sex, ethnicity, disability status, and contact with people with disabilities, after adjusting for baseline scores. Pearson's correlations were used to quantify the association between participants' attitude and empathy scores. Participant scores on the CATCH and CEAQ scales were also analysed at an individual item level to identify group differences. Lastly, data from student surveys, facilitator checklists, and programme attendance records provided additional detail regarding programme outcomes and complemented statistical analyses. All analyses were performed using Stata IC version 12.0

(StataCorp, College Station, TX, USA) statistical software package, and $p < 0.05$ was used to define significance for all statistical analyses.

Chapter 4: Results

Following the STROBE guidelines, this chapter reports the results of the research in terms of participant recruitment and retention, descriptive data, and the main results and analyses. Regression analyses, accounting for class clusters and adjusting for potential regression-to-the-mean effects, are conducted to assess the relationship between the outcome variables of attitude and empathy and the treatment groups. Correlational analyses are conducted to assess the relationship between attitude and empathy variables, and an item response analysis is carried out for the intervention group. The chapter ends with analysis on products of the research including the fidelity measure.

Participant Recruitment and Retention

One hundred and nineteen students in four participating classes from two schools consented to take part in the study (Fig. 4.1). However, one was ineligible due to poor English comprehension skills, and five refused consent at baseline leaving an eligible study sample of 113. Of these, 106 (94%) completed baseline. At T1, another student withdrew consent, leaving 112 eligible participants for T1 and T2 (data for this student at T0 was removed). Of these, 101 (90%) completed the post-test. Nine students from the intervention group completed the post-test three weeks after their scheduled T1 as they were not available for the first post-test administration, and the next possible time to administer the post-test was following the two week school holiday break. Data were collected from 77 (96%) of the 80 students at baseline in the intervention group at the 9-week follow-up (T2). No students were absent or refused at this stage. Progressing from T0 to T2 took approximately 18 weeks, with the final sample for analysis comprising 106 participants. Due to unanticipated changes to the school timetable, the programme was shortened from ten to nine sessions. Sessions nine and ten were condensed and delivered on the final session to ensure the key programme content was covered. As a result of this programme change, participants' total training was

reduced from 17.5 to 15.75 hours duration. In addition, one of the three lead facilitators withdrew from the programme after the second session. This resulted in changes to the initial facilitator plan and the programme director acting as a substitute.

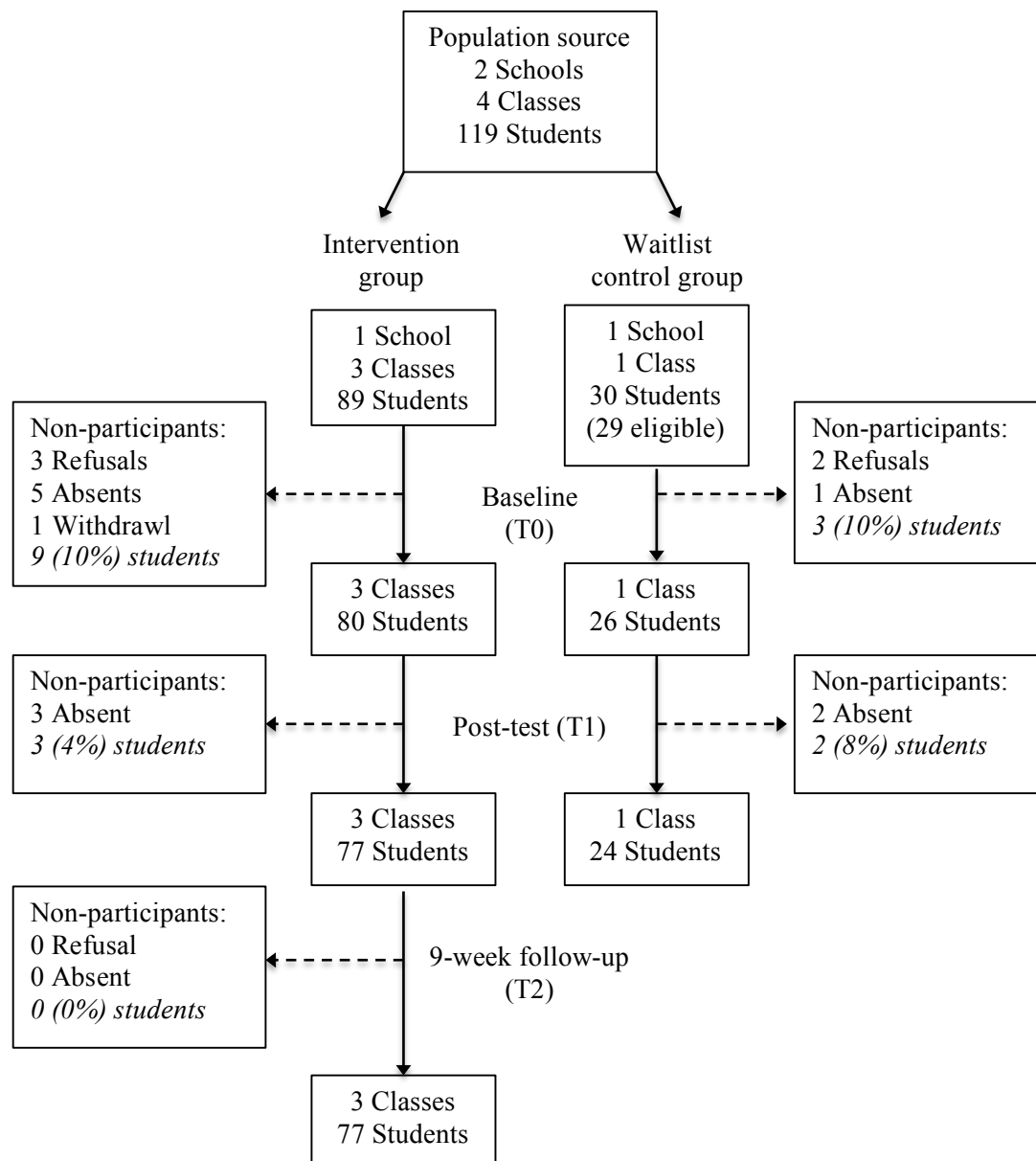


Figure 4.1. Study population and participation over the duration of the study by intervention and waitlist control groups.

Participant Characteristics

Demographic characteristics of the student participants are presented in Table 4.1, including age, sex, ethnic origin, disability status, and items regarding contact with people with disabilities. At baseline, a significant difference in age profiles between the intervention and waitlist control groups was evident (Fisher's exact test, $p < 0.001$). Most students in the intervention group were aged 12-13 years (99%), while the majority of students in the control group were aged 11 years (81%). There was no significant difference in the sex distribution between groups (Fisher's exact test, $p = 1.00$). Participants identified with a number of different ethnic groups, and in some cases more than one. Of the 106 participants, 81 (76%) nominated a single ethnicity, 20 (19%) nominated two ethnicities, and 5 (5%) nominated three ethnicities. There was a significant difference in the ethnic identification between groups (Fisher's exact test, $p < 0.001$) with 91% of the intervention group identifying as NZ European compared with 54% of the waitlist control group, while 39% of the waitlist control group identified as Asian compared with 8% of the intervention group. No significant differences between groups were detected in relation to identifying as having a disability (Fisher's exact test, $p = 0.26$). Intervention and waitlist control group participants also had similar experiences in relation to having a friend or family member with a disability (Fisher's exact test, $p = 0.31$ and $p = 0.40$ respectively), and their frequency of contact with people with disabilities (Fisher's exact test, $p = 0.23$).

Results of Attitude and Empathy Measures

Data completeness was high. For the CATCH scale, which is comprised of seven items, 101 participants recorded valid data for all seven items, three participants recorded valid data for all but one item, and two participants had missing data for two or more items. For the CEAQ scale, which is comprised of 15 items, 100 participants recorded valid data for all 15 items and six participants recorded valid data for all but one item. Three participants

Table 4.1. *Students' Demographic Characteristics, Disability Status, and Contact with People with Disability, by Treatment and Intervention Groups*

	Waitlist control group (n=26)	Intervention group (n=80)	Intervention group 1 (n=31)	Intervention group 2 (n=22)	Intervention group 3 (n=27)
Characteristics	n (%)	n (%)	n (%)	n (%)	n (%)
<i>Age (years)</i>					
11	21 (81)	1 (1)	1 (3)	0 (0)	0 (0)
12	5 (19)	51 (64)	18 (58)	14 (64)	19 (70)
13	0 (0)	28 (35)	12 (39)	8 (36)	8 (30)
<i>Sex</i>					
Female	13 (50)	42 (53)	17 (55)	12 (55)	13 (48)
Male	13 (50)	38 (48)	14 (45)	10 (46)	14 (52)
<i>Ethnic origin *</i>					
Māori	4 (15)	15 (19)	2 (7)	11 (50)	2 (7)
Pacific	0 (0)	4 (5)	1 (3)	0 (0)	3 (11)
Asian	10 (39)	6 (8)	3 (10)	2 (9)	1 (4)
NZ European	14 (54)	73 (91)	28 (90)	19 (86)	26 (96)
Other	5 (19)	5 (6)	2 (7)	2 (9)	1 (4)
<i>Has a disability</i>					
Yes	2 (8)	4 (5)	0 (0)	2 (10)	2 (7)
No	20 (77)	70 (89)	29 (94)	16 (76)	25 (93)
Unsure	4 (15)	5 (6)	2 (7)	3 (14)	0 (0)
<i>Friend or family with disability</i>					
Yes	13 (50)	37 (47)	15 (48)	10 (46)	12 (46)
Otherwise ^	13 (50)	42 (53)	16 (52)	12 (55)	14 (54)
<i>Contact with person with disability in last week</i>					
Yes	3 (12)	22 (28)	7 (23)	5 (23)	10 (37)
No	19 (73)	49 (61)	20 (65)	15 (68)	14 (52)
Unsure	4 (15)	9 (11)	4 (13)	2 (9)	3 (11)

* Students may self identify with more than one ethnic group in which case total numbers will exceed n = 106.

^ Otherwise = Two
were combined to c

Note. Asian ethnicity comprised students from Cambodia, China, India, Indonesia, Korea, Malaysia, Nepal, Pakistan, The Philippines, and Thailand. Ethnicity “Other” included students from America, Australia, Canada, Germany, Morocco, and The Netherlands. There were missing data for one intervention group participant for the ‘has a disability’ item, and for one intervention group participant for the ‘has a friend with a disability’ item.

answered the CEAQ via an intermediate response, that is, they deliberately circled the questionnaire at a midpoint between two of the three response options. This occurred for up to four items in the scale. In these instances, the midpoint score was used in the calculation of the total scale scores. For those participants who completed the post-test three weeks after T1, additional statistical analyses were conducted, however no important ‘time’ effects were observed.

Independent group *t*-tests were conducted to determine whether there were any significant differences between the intervention and waitlist control groups in attitude and empathy scores at baseline. Results showed that the waitlist control group had significantly higher CEAQ empathy scores than the intervention group prior to the delivery of the disability awareness programme ($t(102) = 2.55, p = 0.006$). There was no significant group difference in the baseline means for the CATCH attitude scores. Analysis of covariance (ANCOVA) was employed on all post-intervention analyses to mitigate against ‘regression-to-the-mean’ effects, and also in an attempt to control for baseline differences.

Distributions of the total scores for CATCH and CEAQ at T0 and T1 are illustrated by group in Figures 4.2 and 4.3. Figure 4.2 shows a slight negative skew for the waitlist control group at both T0 and T1 indicating a greater number of CATCH scores at the higher end of the distribution. In contrast, a slight positive skew is shown for the intervention group at both T0 and T1 suggesting a greater number of CATCH scores at the lower end of the distribution. In Figure 4.3, slight negative skews are shown for the waitlist control group at T1 and for the intervention group at both T0 and T1 indicating a greater number of CEAQ scores at the higher end of the distribution at these measurement points.

Figures 4.4 and 4.5 illustrate the range of scores for CATCH and CEAQ at T0, T1, and T2 for the intervention group only. The scatterplot diagrams depict a large distribution in scores at all three measurement points, with the spread appearing to increase from T0 to T1

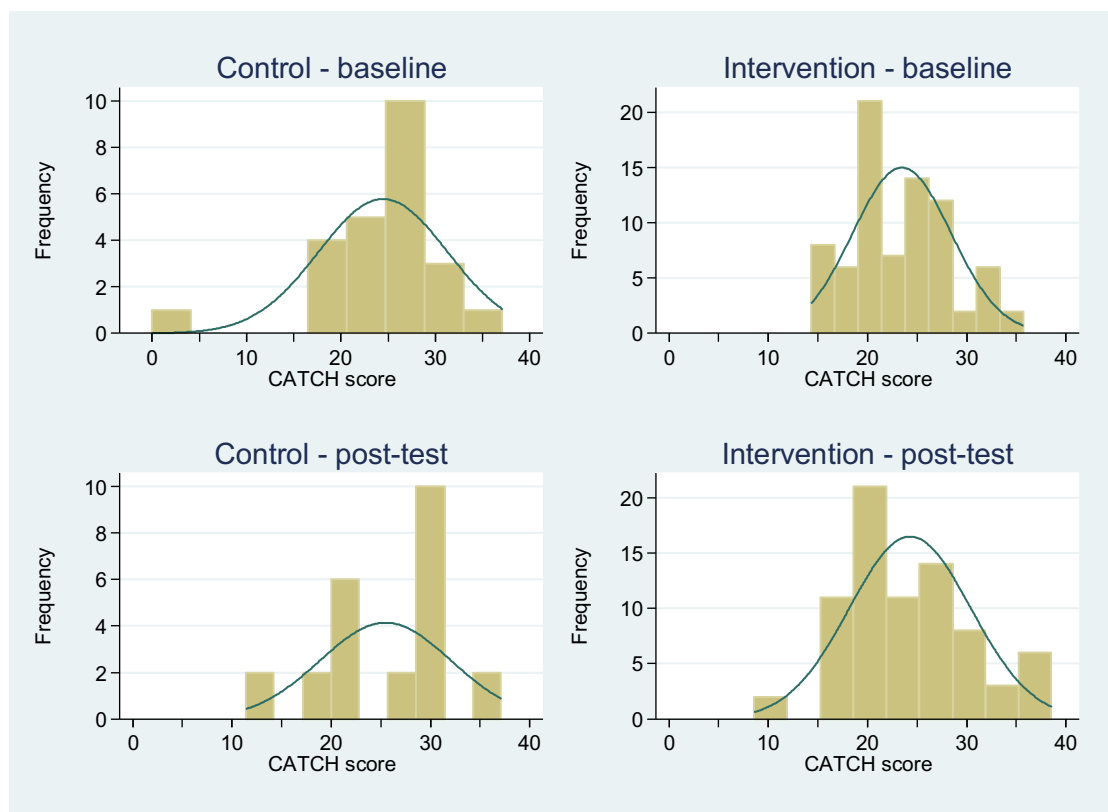


Figure 4.2. Distribution of attitude scores at T0 and T1 by group.

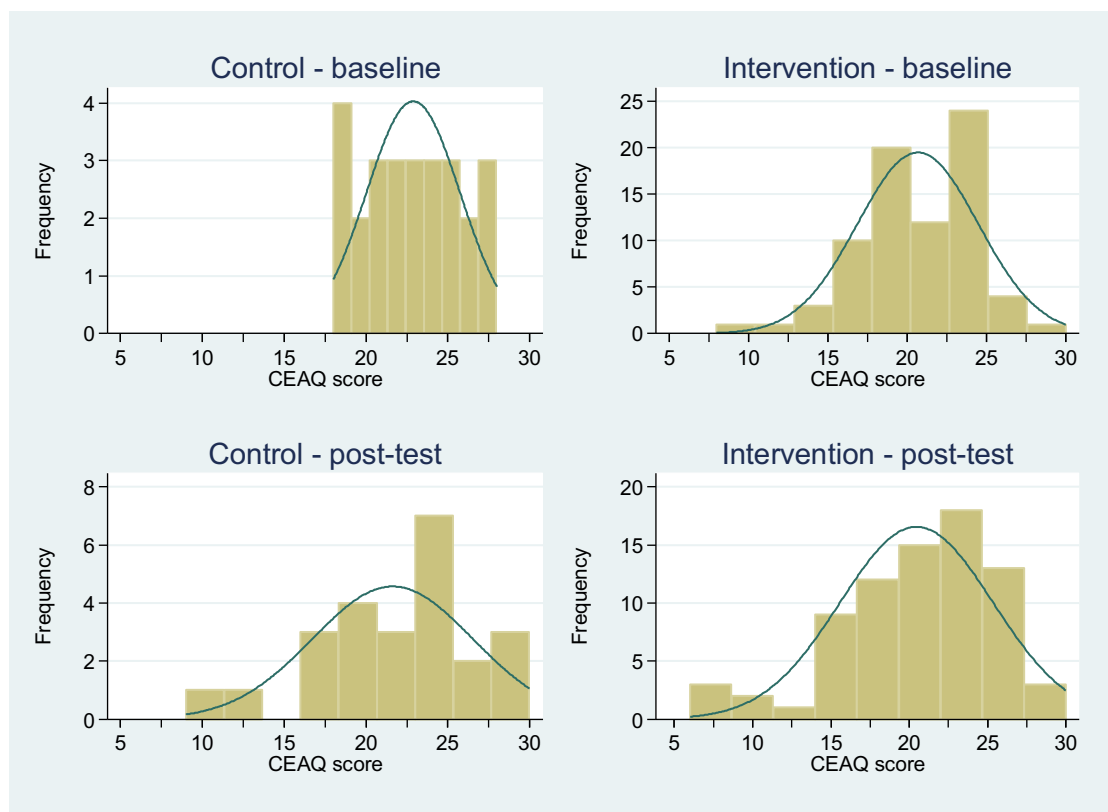


Figure 4.3. Distribution of empathy scores at T0 and T1 by group.

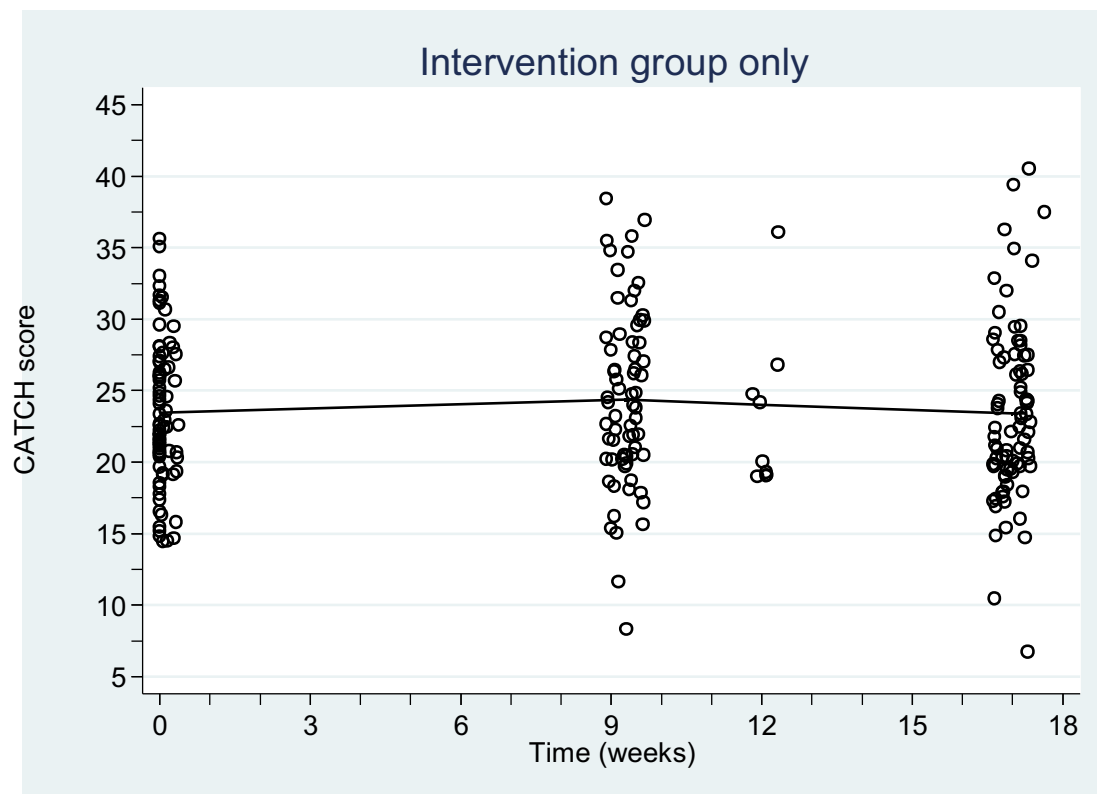


Figure 4.4. Scatterplot diagram depicting individual and mean attitude scores, T0, T1, T2.

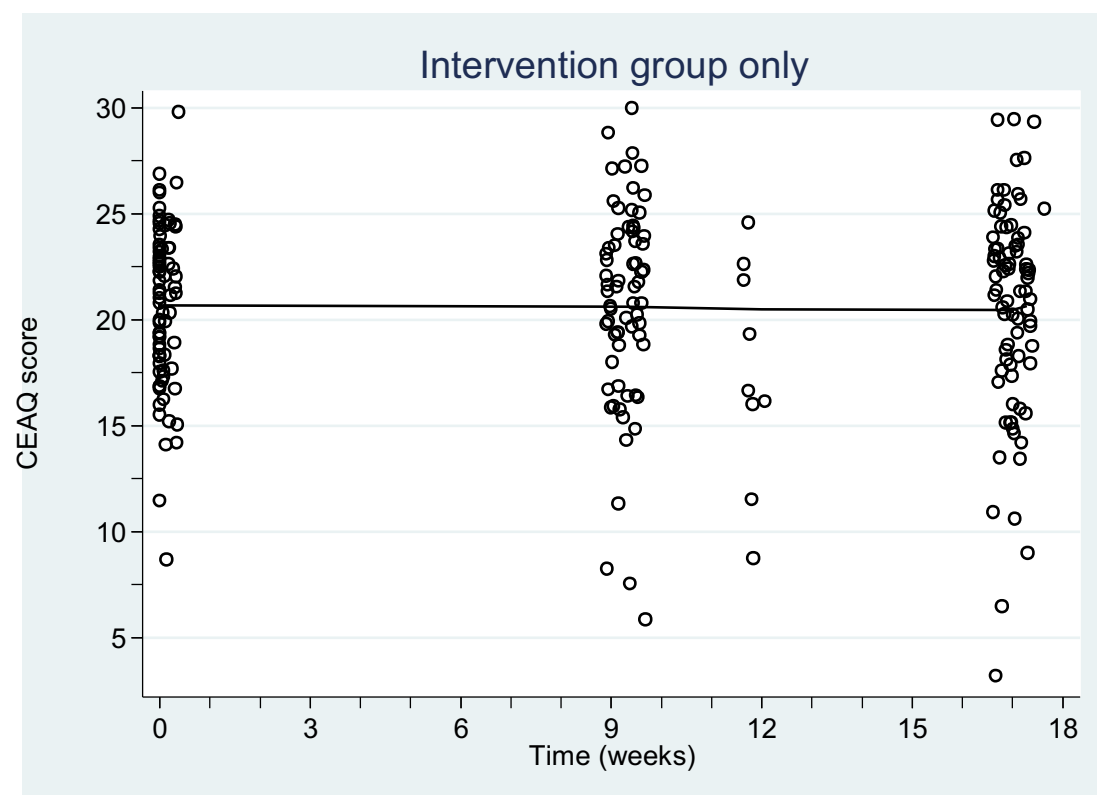


Figure 4.5. Scatterplot diagram depicting individual and mean empathy scores, T0, T1, T2.

and from T1 to T2 for both CATCH and CEAQ individual scores. The lines from week 0-18 depicting mean CATCH and CEAQ scores appear largely unchanged.

Table 4.2 shows the mean CATCH and CEAQ scores for the intervention group total and intervention sub-groups (i.e., classes) at T0, T1, and T2, and for the waitlist control group at T0 and T1. Attitude scores appeared to show a modest improvement for both groups, while empathy scores appeared to remain unchanged for the intervention group and appeared to decrease slightly for the waitlist control group. From Table 4.2, intervention group 1, which comprised the “extension class”, appeared to show the greatest improvement in attitude post-intervention, with average CATCH scores 2.8 points higher than at baseline. In contrast, intervention group 2 appeared to show a decrease in attitude, with a 1.6 point reduction in mean CATCH scores post-intervention. Paired *t*-tests revealed a significant difference in CATCH scores from T0 to T1 for intervention group 1, $t(30) = 4.45, p < 0.001$, but no significant difference in CATCH scores from T0 to T1 for intervention group 2.

Table 4.2. Means and Standard Deviations (SD) at T0, T1, and T2, by Treatment and Intervention Sub-Groups (i.e. School Classes)

Measurement	Experimental Groups						Intervention Sub-groups								
	Waitlist Control			Intervention			Intervention 1			Intervention 2			Intervention 3		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Attitude (CATCH)															
T0	26	24.5	6.8	80	23.5	5.0	31	23.6	5.2	22	21.7	4.8	27	24.8	4.5
T1	24	25.5	6.6	77	24.3	6.1	31	26.4 ***	5.0	22	20.1	6.6	24	25.5	5.2
T2	0	na	na	77	23.4	6.3	31	25.5	5.8	22	18.6	4.8	24	24.8	5.9
Empathy (CEAQ)															
T0	26	22.9	2.9	80	20.7	3.8	31	22.4	3.1	22	19.2	3.2	27	19.8	4.3
T1	24	21.6	4.9	77	20.5	4.9	31	22.4	3.8	22	20.0	4.8	24	18.4	5.5
T2	0	na	na	77	20.5	5.1	31	22.7	3.1	22	20.0	4.8	24	18.4	6.1

*p<0.05, **p<0.01, ***p<0.001

na = not available

Primary Analyses

One-way ANCOVAs were carried out to measure the impact of the disability awareness programme on participants' empathy and attitude, adjusting for baseline scores. Analysis of CATCH scores provide no statistical evidence to suggest that the change in attitudes since baseline were different between intervention and waitlist control groups ($p = 0.61$). Similarly, when applied to CEAQ scores, no significant treatment differences were found ($p = 0.28$). For attitude, calculation of effect sizes revealed a nil effect for CATCH scores from T0 to T1 in both the intervention group ($d = 0.15$) and the waitlist control group ($d = 0.15$). However, for the extension class, the programme yielded a medium effect ($d = 0.57$) from T0 to T1. This compared with a nil average effect ($d = -0.08$) for intervention sub-groups 2 and 3. In relation to empathy, the programme produced no effect in CEAQ scores from T0 to T1 for the intervention group ($d = -0.05$), while a small negative effect was evident for the waitlist control group ($d = -0.33$).

Primary Analyses Adjusted for Demographic and Disability Variables

Simple linear regression analyses, clustered by school classes, were conducted to show the relationships between the post-test CATCH and CEAQ scores and the demographic and disability variables of age, sex, ethnicity, disability status, and contact with people with disabilities, after adjusting for baseline scores (Table 4.3). A significant relationship was found between 'has a disability' and the post-test CATCH score ($p = 0.05$), after adjusting for baseline scores. Participants who responded *No* to the 'has a disability' item had CATCH scores, on average, 3.7 (95% CI: 0.4, 7.0) points higher than participants who responded *Yes* in the post-test period. Post-test analyses showed significant relationships with no other demographic and disability variables.

Table 4.3. *Factors Associated with Post-Test Scores: Regression Analysis, Beta Coefficient and Standard Error*

	<i>B</i>	<i>SE B</i>
Attitude		
<i>Age</i>	1.17	0.64
<i>Sex</i>		
Male (reference)		
Female	1.91	1.11
<i>Ethnic origin</i>		
NZ European (reference)		
Māori	-5.02	1.51
Pacific/Other	-1.41	0.55
<i>Has a disability</i>		
Yes (reference)		
No	3.66	1.04 *
Unsure	3.26	2.79
<i>Friend or family with disability</i>		
Yes (reference)		
Otherwise	1.22	1.12
<i>Contact with person with disability in last week</i>		
Yes (reference)		
No	0.85	1.41
Unsure	2.64	1.32
Empathy		
<i>Age</i>	0.02	0.48
<i>Sex</i>		
Male (reference)		
Female	1.22	1.14
<i>Ethnic origin</i>		
NZ European (reference)		
Māori	-3.75	1.23
Pacific/Other	0.27	0.90
<i>Has a disability</i>		
Yes (reference)		
No	2.38	2.72
Unsure	2.83	4.36
<i>Friend or family with disability</i>		
Yes (reference)		
Otherwise	1.13	0.69
<i>Contact with person with disability in last week</i>		
Yes (reference)		
No	0.22	1.19
Unsure	0.42	1.40

*p<0.05

Correlation between CATCH and CEAQ Scores

Pearson's correlation analyses were conducted to assess the relationship between CATCH and CEAQ scores among participants (Fig. 4.6). Moderate significant positive correlations were observed, for the intervention and waitlist control groups combined, between CATCH and CEAQ scores at baseline $r(105) = 0.36, p < 0.001$ and post-test $r(99) = 0.45, p < 0.001$. For the intervention group, there were moderate positive correlations between empathy and attitude scores at baseline $r(79) = 0.33, p < 0.005$, post-test $r(75) = 0.42, p < 0.001$, and follow-up $r(75) = 0.44, p < 0.001$. For the waitlist control group, there was a moderate positive correlation between empathy and attitude scores at baseline $r(24) = 0.48, p < 0.05$, and a strong positive correlation at post-test $r(22) = 0.51, p < 0.05$. Patterns between groups largely overlapped and scores appeared a little more spread at T1 and T2.

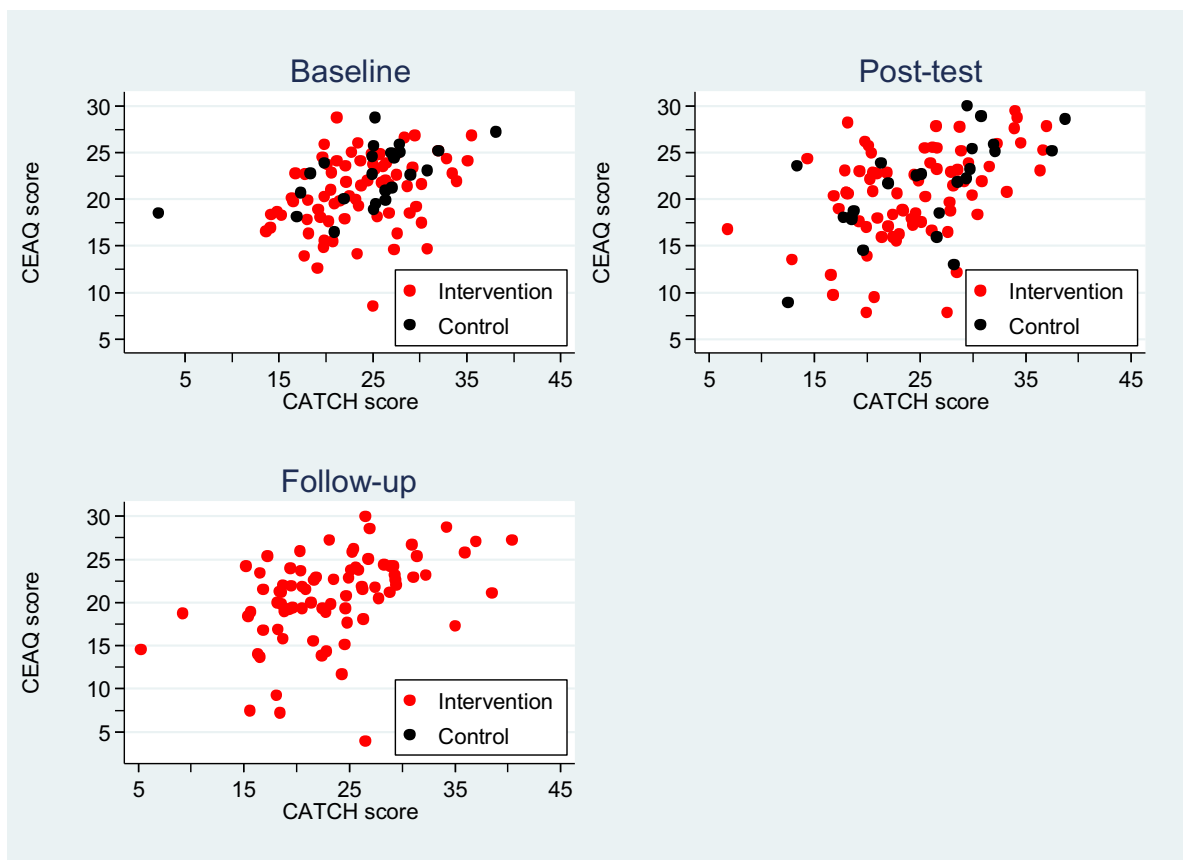


Figure 4.6. Scatterplot diagrams depicting the correlation between CEAQ and CATCH scores, by group, at T0, T1, and T2. Control group not measured at T2.

Item Analysis

CATCH scale. Table 4.4 displays the mean pre-test and post-test item scores on the CATCH scale, for the intervention and waitlist control groups. For the intervention group, the greatest absolute of relative percentage change improvement was shown for the two behavioural items, “I would invite a kid with a disability for a sleep over at my house” and “I would tell my secrets to a kid with a disability”, and one affective item, “I would be pleased if a kid with a disability invited me to his/her house”. For the waitlist control group, the greatest absolute of relative percentage change improvement was shown for one of the behavioural items, “I would tell my secrets to a kid with a disability”, and two of the affective items, “I would be pleased if a kid with a disability invited me to his/her house” and “I would like to have a kid with a disability live next door to me”. There was a significant difference between groups for the latter affective item ($p = 0.01$).

CEAQ scale. Table 4.5 displays the mean pre-test and post-test item scores on the CEAQ scale, for the intervention and waitlist control groups. For the intervention group, the greatest absolute of relative percentage change improvement was shown for the items, “It would bother me if my friend got grounded”, “I would feel bad if the kid sitting next to me got into trouble”, and “Seeing a kid who is crying makes me feel like crying”. For the waitlist control group, the greatest absolute of relative percentage change improvement was shown for the items, “Other people's problems really bother me”, “I would feel bad if my Mum's friend got sick”, and “I would get upset if I saw someone hurt an animal”, and there was a significant difference between groups for all three of these items ($p < 0.001$, $p = 0.003$, and $p = 0.01$ respectively).

Table 4.4. *Mean and Standard deviation (SD) for Item Scores on CATCH (range 0-4), by Group*

Questionnaire Item	Intervention Group Responses					Waitlist Control Group Responses				
	Pre-test		Post-test		% Change	Pre-test		Post-test		% Change
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
I would be happy to have a kid with a disability for a friend.	3.80	0.69	3.81	0.74	0.3%	3.84	0.97	3.79	0.78	-1.3%
I would enjoy being with a kid with a disability.	3.19	0.81	3.23	0.89	1.3%	3.33	1.01	3.42	0.93	2.7%
I would invite a kid with a disability for a sleep over at my house.	3.20	0.70	3.30	0.75	3.1%	3.38	0.97	3.38	0.71	0.0%
I would like to have a kid with a disability live next door to me.	3.45	0.63	3.52	0.70	2.0%	3.48	0.87	3.71	0.81	6.6%**
I would tell my secrets to a kid with a disability.	2.91	0.73	3.04	0.87	4.5%	2.60	0.87	3.00	0.78	15.4%
I would be pleased if a kid with a disability invited me to his/her house.	3.41	0.67	3.52	0.70	3.2%	3.58	0.81	3.75	0.74	4.7%
I would feel good doing a school project with a kid with a disability.	3.51	0.69	3.52	0.77	0.3%	3.92	0.94	3.79	0.83	-3.3%

*p<0.05, **p<0.01, ***p<0.001

Table 4.5. Mean and Standard Deviation (SD) for Item Scores on CEAQ (range 0-2), by Group

Questionnaire Item	Intervention Group Responses					Waitlist Control Group Responses					
	Pre-test		Post-test		%	Pre-test		Post-test		%	
	Mean	SD	Mean	SD	Change	Mean	SD	Mean	SD	Change	
When I see a kid who is upset it really bothers me.	2.29	0.56	2.29	0.58	0.0%	2.27	0.78	2.29	0.62	0.9%	
I would feel bad if my Mum's friend got sick.	2.34	0.59	2.35	0.62	0.4%	2.42	0.70	2.50	0.66	3.3%	**
It would bother me if my friend got grounded.	2.11	0.66	2.26	0.64	7.1%	2.27	0.53	2.25	0.79	-0.9%	
I understand how other kids feel.	2.38	0.56	2.33	0.61	-2.1%	2.65	0.69	2.42	0.58	-8.7%	**
I would feel bad if the kid sitting next to me got into trouble.	2.00	0.64	2.17	0.66	8.5%	2.35	0.69	2.17	0.64	-7.7%	
It bothers me when my teacher doesn't feel well.	2.01	0.56	1.94	0.64	-3.5%	2.31	0.62	2.17	0.57	-6.1%	
Other people's problems really bother me.	1.89	0.60	1.90	0.51	0.5%	1.81	0.40	2.04	0.62	12.7%	***
When I'm mean to someone, I usually feel bad about it later.	2.78	0.45	2.65	0.58	-4.7%	2.89	0.33	2.71	0.62	-6.2%	
I feel sorry for kids who can't find anyone to hang out with.	2.71	0.48	2.62	0.58	-3.3%	2.73	0.45	2.63	0.58	-3.7%	
If two kids are fighting, someone should stop it.	2.86	0.38	2.79	0.44	-2.4%	2.81	0.40	2.75	0.44	-2.1%	
When I see someone who's happy, I feel happy too.	2.51	0.57	2.40	0.63	-4.4%	2.77	0.43	2.50	0.66	-9.7%	
I'm happy when the teacher says my friend did a good job.	2.58	0.55	2.55	0.55	-1.2%	2.92	0.27	2.67	0.57	-8.6%	
Seeing a kid who is crying makes me feel like crying.	1.73	0.67	1.86	0.69	7.5%	1.92	0.63	1.88	0.74	-2.1%	
I would get upset if I saw someone hurt an animal.	2.89	0.32	2.78	0.45	-3.8%	2.81	0.40	2.88	0.34	2.5%	**
I feel happy when my friend gets a good grade.	2.63	0.51	2.57	0.57	-2.3%	2.96	0.20	2.79	0.51	-5.7%	

*p<0.05, **p<0.01, ***p<0.001

Other Analyses

Student survey. Student surveys were completed at T0 and T1 by intervention sub-groups 1 and 3. Intervention group 2 completed student surveys at T0 only. Among the 43 participants who completed surveys at T1, 38 (88%) students reported that they knew more about impairment and disability following the “It’s About Ability” programme. In addition, ratings for the two items that tapped the behavioural component of attitude improved from T0 to T1. Average mean item scores for the respondents increased from $M = 8.6$ to $M = 9.0$ and $M = 8.5$ to $M = 8.7$, with pre- to post-test observed percentage changes of 3.0 and 3.9 respectively. Of the 42 participants who responded to the item asking them to rate their experience of the “It’s About Ability” programme, 24 (57%) students responded “I got a lot out of the sessions”, 15 (36%) students responded “I learned a little”, and 3 (7%) students responded “I didn’t learn much”.

Fidelity measure. Lead facilitators in each of the three intervention sub-groups were provided with a total of nine fidelity checklists, one for each of the programme sessions completed. For intervention group 1, checklists were completed for six of the nine sessions. Some disruption was noted at the beginning of one of the sessions, with students entering and leaving the classroom, however complete delivery of the programme content for the sessions was confirmed, and there was no major deviation from the set programme noted. Personal stories were told by the facilitators in two of the sessions. Checklists were completed for five of the nine sessions for intervention group 2. In two of the sessions, the facilitators were unable to locate the student journals for completion. Most of the sessions appeared to start late or finish early, and there was some difficulty noted with a lack of audio when showing one of the videoclips. For intervention group 3, checklists were completed for four of the nine sessions. In two sessions, not all of the programme content was covered. Reasons cited

for incomplete delivery were due to starting 30 minutes late, and a lack of student engagement.

Programme attendance. Participant attendance records showed that an average of 12% of students across the intervention group were absent at any one time during the nine sessions of the programme (Table 4.6). Poorest attendance was recorded for intervention group 2, who had an average of 15% of students absent, and best attendance was recorded for intervention group 1, who had an average of 9% of students absent. Of the 80 participants in the intervention group, 23 (29%) students attended all nine sessions. In intervention group 1, 12 (39%) of the students attended all sessions. Four (18%) of students attended all sessions in intervention group 2, and in intervention group 3, 7 (26%) of the students attended all sessions.

Table 4.6. *Record of Programme Attendance, by Intervention Sub-Group and Total*

Week	Intervention 1 (n=31)		Intervention 2 (n=22)		Intervention 3 (n=27)		Intervention Total (n=80)	
	Present	% Absent	Present	% Absent	Present	% Absent	Present	% Absent
1	30	3%	22	0%	27	0%	79	1%
2	28	10%	21	5%	23	15%	72	10%
3	29	6%	20	9%	24	11%	73	9%
4	25	19%	11	50%	20	26%	56	30%
5	30	3%	20	9%	24	11%	74	8%
6	30	3%	21	5%	22	19%	73	9%
7	29	6%	22	0%	26	4%	77	4%
8	29	6%	19	14%	25	7%	73	9%
9	23	26%	12	45%	21	22%	56	30%
AVG	28	9%	19	15%	24	13%	70	12%

Chapter 5: Discussion

This chapter summarises the key results in relation to the study aims, and compares the findings to the existing research literature. This is followed by a discussion on the limitations and strengths of the study. Implications for future implementation of the “It’s About Ability” programme are then presented, along with recommendations for future research. Finally, the conclusion identifies the unique contributions of this study to the literature.

Summary of Findings and Comparison to the Literature

The present study aimed to explore the effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of intermediate school students towards peers with a disability. Results showed that there was no significant change in attitudes or empathy from measurement time points T0 to T1.

Contrary to the hypothesis that students who participated in the “It’s About Ability” programme would show more positive attitudes towards people with a disability, compared with students who did not participate in the programme, there was no significant difference between the groups. The fact that both groups appeared to show a modest increase in attitude scores from T0 to T1 suggests that improvements over time resulted from something other than the programme itself. Improvement may have come about as a result of the pre- and posttest questionnaires, and participants reflecting more on their interactions with peers with disabilities. This possible explanation for attitude improvement has been indicated in previous studies that have used the CATCH instrument (i.e., Godeau et al., 2010).

Results also showed no difference between groups in empathy over time. One possible reason that the empathy scores did not change in either group could be the age of the participants. All of the participants were aged between 10 and 14 years, and Garaigordobil (2009) has reported that the capacity for empathy does not increase during this time. In

accord with this, the scores on the empathy measure were mainly in the upper 50% of possible scores at baseline, so any change in the overall score might have been more difficult to show than if the scores had been lower at the outset. Therefore, the combination of the age of the participants and the relatively high measurement of empathy might have limited the overall impact that could actually be shown in the present study.

The item scores can also add to this consideration, because for both groups there was a lack of positive change in the 15 statements related to empathy. It is difficult to draw conclusions regarding the item analyses due to the extremely high variability in scores, however for the intervention group, items that showed the highest observed percentage change appeared to tap negative affect in relation to friends or peers; for example, “I would feel bad if the kid sitting next to me got into trouble.” For the waitlist control group, the item: “Other people's problems really bother me” showed the highest observed percentage change. While it is possible that the “It’s About Ability” programme, or the measure itself, may have prompted some participants to reflect more on their feelings towards peers experiencing difficulty, there was no significant change over time in the measured level of empathy for either group.

The finding of no significant difference in the attitude or empathy scores of the intervention group between T0 and T1 was unexpected, as studies in other parts of the world have reported significant positive changes in the attitudes of children aged 11-13 years, following similar manualised disability awareness programmes (i.e., Clarke et al., 2011; Ison et al., 2010; Marom et al., 2007; Moore & Nettelbeck, 2013; Papaioannou et al., 2013; Rillotta & Nettelbeck, 2007; Sable, 1995). Elements most common to nine manualised programmes, which yielded medium to large effects, were a duration of at least three hours, multiple sessions, and direct contact with a person with a disability. Six of the programmes incorporated multiple components and were integrated into school curriculums. Five of the

programmes incorporated training in empathy and perspective taking and group discussion. The “It’s About Ability” programme featured all of the elements common to the nine effective manualised programmes, making the findings of the current study incongruous in comparison.

Group discussion and having a programme integrated into the school curriculum were attributes of the “It’s About Ability” programme, and many of the interventions that achieved medium to large effects. However, mean effects of the interventions that comprised the earlier review showed that programmes that did not incorporate these elements were more effective.

In particular, the fact that the “It’s About Ability” programme was incorporated into the school curriculum may have negatively impacted attitude scores. Attitude scores at baseline in the current study were lower when compared with attitude scores in other studies that used CATCH with a similar age group (Godeau et al., 2010; Holtz & Tessman, 2007; Moore & Nettelbeck, 2013; Tavares, 2011). This was despite close to half of the participants having a friend or family member with a disability, which would usually equate to higher baseline scores. Incorporation into the school curriculum meant that programme attendance was compulsory. According to Godeau and colleagues (2010), significantly higher CATCH scores have been found for children who volunteer for disability awareness programmes. As the children in the current study had no choice but to participate, lower mean scores may have resulted from the inclusion of students with more negative attitudes. Taking these factors into account, the “It’s About Ability” programme may have produced more positive outcomes had it not involved group discussion, and had it not been incorporated into a school curriculum.

Direct contact with an adult with a disability was a key component in manualised disability awareness programmes that yielded medium to large effects (i.e., Ison et al, 2010;

Moore & Nettelbeck), however this component did not contribute to a significant effect in the current study. A possible reason for this may be related to the nature of the direct contact. According to Allport's (1954; 1979) contact hypothesis, a reduction in negative attitudes is supported when members of different groups share equal status, and when interaction involves co-operation and reciprocity, and is rewarding for both parties. It is possible that some of these conditions were not met in the current study. As facilitators, it is likely that the adults with a disability took on the role of the expert, which diminished the opportunity for equal status between them and the student participants. As a figure in authority, the adult with a disability may have delivered the programme with a traditional teacher-directed style, rather than creating a bi-directional learning experience, with a greater potential for reciprocity. Feedback from post-programme teacher evaluations suggested that in some instances, the programme was imparted like a lecture, with a "sit and receive" style of delivery. Research is mounting in favour of a more open and discursive approach to learning, rather than one that is traditional and didactic, with interaction between groups that is less formal and contrived (Murman et al., 2014). While the component of direct contact was employed in this intervention, the conditions for improved attitudes between groups may not have been met.

A lack of overall effect may also be explained by elements related to the way the "It's About Ability" programme was implemented. In particular, length of teaching time and lack of active engagement by participants was raised in teacher evaluations as being problematic. It has been recommended that interventions to change attitudes, particularly of adolescents, be experiential and interactive, allowing for the two-way flow of information and influence between parties (Beelmann & Heinemann, 2014; Lindsay & Edwards, 2013; Murman et al., 2014). Four weeks into the programme, feedback was received from the school suggesting that the programme be made more interactive. This was despite the fact that programme

delivery involved group activities, group discussion, and role-play. More hands-on activities and attention getters were recommended to maintain interest and recapture students' focus when necessary. According to feedback from the teachers, session lengths of one hour and 45 minutes were considered too long for students to remain seated and focused. While programme content was judged to be satisfactory, one teacher reported that sessions were "a bit drawn out", and would benefit from being shorter and more concise. It was also suggested that facilitators involve the teachers more effectively to clarify expectations and contribute to discussions. The more active involvement of teachers, and the use of their pedagogical skills were recommended to assist with engaging and motivating students. For students who lacked motivation or interest in the subject matter, as was the case for some of the students in intervention group 2, a greater level of engagement was likely paramount. Making the programme more interactive and concise so as to retain students' interest and continued focus may have affected more positive outcomes.

Weaknesses in programme fidelity may also have contributed to the lack of overall effect. Checklists to measure programme fidelity were completed on average for just over half of the sessions. Those completed indicated some deviation from the set programme as well as incomplete delivery. This was particularly evident for intervention groups 2 and 3. Stronger adherence to programme protocol may have increased the effectiveness of the intervention for these groups.

Aspects related to the background and experience of the programme facilitators may have influenced the overall effect of the programme. While all lead facilitators had training and experience delivering disability awareness programmes, experience working with children was limited. Just one facilitator had experience teaching children, however this person dropped out after the second session. One of the largest effect sizes achieved, among the manualised programmes reviewed, involved direct contact with a person with a disability

as co-facilitator (i.e., Ison et al., 2010). In contrast to the “It’s About Ability” intervention however, all of the other presenters of the “Just Like You” programme had either teaching experience, or had worked with children. Feedback from teacher evaluations also strongly recommended pedagogical training for facilitators. A lack of this type of training, and experience working with children may have impacted on the style with which the programme was delivered, as well as its outcomes.

Furthermore, a lack of consistency in the lead programme facilitator may have impacted on the effectiveness of the intervention. Positive attitudes are more likely to occur when interaction between groups results in getting to know one another as individuals (Yuker, 1988), and when the humanity of the out-group is emphasised (Murman et al., 2014). It was anticipated that when the programme facilitators openly discussed their impairments, this might have led to improved attitudes through a process of enhanced empathy and perspective taking, on the part of the students. One reason why this did not occur may have been due to the inconsistency in facilitators. With the dropout of one of the key facilitators early in the programme, the intervention classes experienced up to three different lead facilitators. This increased number may have reduced the ability for participants to build rapport and subsequent empathy, and in turn, affected the outcome variables.

Programme attendance may have undermined the effectiveness of the intervention. Analysis of participant attendance records showed that an average of 11.9% of students were absent at any one time during the nine sessions of the programme. This compared less favourably with a total absence rate of 10.2% for schools in the Canterbury region (Ministry of Education, 2015). Poorest attendance was recorded for students in intervention group 2, who had an average of 15.2% of students absent across the course of the programme. For two sessions in particular (sessions 4 and 9), 50% and 45% of intervention group 2 were away. Session 4 covered the topics of discrimination and stereotypes, which were a key

aspect of the training in empathy and perspective taking. Session 9 introduced the topics of accessibility, adaptive tools and technology, adaptive sports, and advocacy. The comparatively high level of absenteeism for intervention group 2 may have contributed to the lack of improvement in attitudes scores for this sub-group.

Another possible reason for the lack of overall effect may be related to the research design, and the sensitivity of the measures used. Changes may have occurred that the CATCH and CEAQ based questionnaire did not detect. The extent to which Likert ratings are sensitive when registering change has been called into question (Moore & Nettelbeck, 2013). A tendency for midpoint responding and a reluctance to use the strongest or least favourable ratings has been observed with attitude assessment using similar instruments in previous studies (i.e., Ison et al., 2010; Krahé & Altwasser, 2006; Moore & Nettelbeck, 2013). For these reasons, an extension of the range of response options to avoid a midpoint has been recommended. In the current study, a potential lack of scale sensitivity may have been especially relevant for the CEAQ, which incorporated just three response options. Several participants elected to circle the questionnaire at an intermediate point between two of the three response options. This was particularly the case for item 10 (i.e., “Other people’s problems really bother me”). Incorporating a greater number of response options may have increased the sensitivity of the measure used to detect change in participants’ attitudes and empathy.

Moreover, evidence of a lack of immediate change in attitude does not preclude attitude change in the future, as a result of the intervention. No immediate evidence of attitude change may be related to the developmental stage of the study participants; i.e., 11-13 years. Children of this age may require a longer period of time to internalise the content of the programme, and it is possible that knowledge, which was gained, but not adequately

measured in this study, will contribute to positive changes in both attitude and behaviour towards people with disabilities in the future.

In addition to the finding of no significant difference in attitude or empathy in the intervention group from T0 and T1, regression analyses of both groups suggested that there were few significant relationships between post-test scores and factors related to demographic characteristics, disability status, and contact with people with disabilities. For example, the current study showed no significant effect for gender. This was in contrast to existing research which has demonstrated that girls have more favourable attitudes towards peers with disabilities than boys (Hutzler, Fliess-Douer, Avraham, Reiter, & Talmor, 2007; Reina, López, Jiménez, García-Calvo, & Hutzler, 2011; Vignes et al., 2009). The regression analysis also did not support research involving children aged 10-14 years, which showed that girls scored significantly higher than boys on measures of empathy (Garaigordobil, 2009). There was also no significant relationship between post-test attitude and empathy scores and the ethnic origin of participants when considering both groups together.

Prior contact and having a family member with a disability have been recognised as potential moderators of attitudes towards people with disabilities (Campos et al., 2014; Clarke et al., 2011; Moore & Nettelbeck, 2013). For example, attending a school with separate classes for children with disabilities was associated with lower improvements in children's attitudes following a manualised disability awareness intervention (Godeau, 2010). Hutzler and colleagues (2007) found that participants' level of previous contact with a person with a disability had a significant effect on the behavioural and affective components of attitude, but not on the cognitive domain, following a brief intervention that involved simulation activity. The current study did not support these findings, with no effect shown for having a friend or family member with a disability, or having recent contact with a person with a disability.

While there was no significant change in the attitudes and empathy of the intervention group from T0 to T1, it was apparent that the programme did produce some effects. The standardised measures used in the current study did not assess changes in knowledge regarding people with disabilities, however analysis of post-programme student surveys suggested a large improvement in this area. Data from post-programme student surveys indicated that knowledge regarding disability and impairments increased for the majority of children following the programme. According to teacher evaluations also, the programme content related to human rights was a strong area of learning, there was agreement students were more aware of the rights of all children following the programme. It is important to note that the revised and shortened version of the CATCH scale, used in the current study, only included items that tapped the affective and behavioural components of attitude, and not the cognitive domain. Therefore, although the programme may have yielded an effect on the cognitive dimension of attitude, it was not detected due to the instrument employed. Based on the student survey findings and research indicating that the cognitive component of attitude is easier to influence than other components of attitude (Beelmann & Heinemann, 2014), it is likely significant improvements in the cognitive domain of attitude would have been evident, had it been assessed.

Improvement in the behavioural dimension of attitude was also indicated in the student surveys via the two items which tapped this domain. Although statistical analyses were not carried out, positive percentage changes from pre- to post-programme were observed. This was despite the relatively high average mean scores which were apparent at baseline. Results suggested that respondents had a high level of willingness to interact with peers with a disability at baseline, which increased slightly following the intervention.

Item analyses add to this consideration because a positive pre-to post-test percentage change was observed for all of the attitude statements for the intervention group. Moreover,

attitude items with the highest observed percentage change were those that tapped the behavioural component of attitude. A similar positive percentage change was evident for just one of the affective items. This finding provided support to existing research which has suggested the behavioural dimension of attitude is easier to influence than the affective component (Beelmann & Heinemann, 2014). It is interesting to note the responses to one of the behavioural attitude items, “I would tell my secrets to a kid with a disability.” Students in the intervention group commented: “I don't tell anyone my secrets”, and “Don’t like to share secrets” to this item. Responses to this item may not have been based on whether or not the respondent would tell secrets to a peer with a disability, but rather, whether or not the respondent would tell secrets at all. Mean attitude scores at all measurement timepoints, may have been influenced by the interpretation of this item.

While changes in attitude from T0 to T1 were not apparent for the intervention group as a whole, a significant improvement was evident for intervention group 1, the “extension class”. It is unclear why this class was the only group to show significant attitude improvement, however the mean empathy score of this class was higher at baseline when compared with the other intervention sub-groups. The effect of the programme on the attitude scores of intervention group 1 may have been mediated by higher levels of empathy that were evident at baseline. It is acknowledged that higher levels of empathy are associated with pro-social behaviour (Almeida, Correia, & Marinho, 2010; Jolliffe, & Farrington, 2006), and in turn, enhanced academic achievement (Caprara et al., 2014). Results from the current study indicate a positive correlation between academic achievement and attitude improvement, that may have been mediated by empathy.

An additional aim of the current study was to explore the relationship between empathy and attitudes towards people with disabilities. Correlational analyses showed a moderately positive and significant relationship between attitude and empathy, with higher

rates of empathy associated with more positive attitudes across participants, at all three timepoints. This detection corroborates the findings of adult studies that have employed empathy evoking strategies to improve attitudes towards stigmatised groups (Batson et al., 1997; Tarrant & Hadert, 2010). Studies with adolescents have also reported statistically significant differences between intervention and control groups following a programme to enhance knowledge and empathy towards people with mental illness (Murman et al., 2014). Findings of the current study contribute to the growing research on this empathy-attitude effect.

Finally, while statistical analyses showed no significant relationship between post-test scores and demographic characteristics, there was a significant effect in relation to whether or not participants themselves had a disability. Participants who responded that they did not have a disability at baseline, showed significantly greater improvements in attitude, with CATCH scores on average 3.7 points higher, when compared with participants who did identify as having a disability. Baseline attitude scores for participants who identified as having a disability were found to be comparatively higher than those without a disability. This result supports the findings of similar studies where the lowest attitude scores at baseline have shown the greatest improvements (Bella-Awusah et al., 2014; Godeau et al., 2010; Tavares, 2011).

Limitations and Strengths

The current study suffered from several limitations that may have compromised the validity of the results. A lack of randomisation of participants to groups, and extremely large distributions within the sample were evident. It is recommended that future studies employ a randomised design and multiple schools to mitigate this risk. The study was limited by its use of a convenience sample and a large imbalance in size between the intervention and waitlist control groups. This, combined with the fact that no statistical power calculations

were undertaken, may have increased the potential for type II errors. In addition, there were significant differences between groups at baseline, including age, and higher empathy scores for the waitlist control group. Higher empathy scores may have been due to the diverse ethnic make up of the class that made up the waitlist control group, and a classroom culture of inclusion. Prior to administration of the pre-test questionnaire, the classroom teacher disclosed that he had recently discussed the topic of disability with his students, and the importance of showing empathy towards people with impairments. He described a holistic approach to his teaching, and believed that his students were possibly more tolerant as a group compared with other classes at the school. Students in the waitlist control group had also had previous exposure to a child with Down Syndrome, who had been in their class earlier in the year. Fundamental differences between the groups related to age, size, and possibly classroom culture, may have influenced study findings.

The current study was limited to measures of attitude and empathy change, and did not incorporate the assessment of actual behaviour towards peers with a disability. This flaw in methodology was common among the manualised disability awareness programmes reviewed, and may have undermined the validity of study findings. Assessment of knowledge regarding peers with disabilities and a failure to interview teacher and student participants additionally limited the findings. Moreover, the self-report questionnaires used to assess children's attitudes may have been subject to social desirability bias. In other words, participants may have been inclined to answer in a way they felt would please the researcher, or more positively due to expectations of social norms. Consideration of, and responding according to, what might be socially expected in this context, may represent a first step in the changing of attitude however. Future studies should incorporate measures of actual behaviour towards peers with disabilities and structured interviews with participants to add richness and to assist in triangulating findings.

Another potential limitation was the use of the umbrella term ‘disability’ for all of the questionnaire items related to attitude. Participants were given no explanation or definition of what the term ‘disability’ represented, prior to the commencement of the programme. At pre-test, a student from the intervention group asked “Is OCD a disability?” It is well known that attitudes towards people with disabilities differ depending on the type of the disability and its severity (Marom et al., 2007). Greater specificity with the use of different disability types in the questionnaire items may have led to a greater understanding of children’s attitudes.

Two further limitations are worthy of discussion. Firstly, many manualised disability awareness interventions, among those reviewed, were grounded in theories of attitude change, which may have contributed their effectiveness (i.e., Marom et al., 2007; Moore & Nettelbeck, 2013; Papaioannou et al., 2013; Rillotta & Nettelbeck, 2007; Sable, 1995). A lack of developmental research and theory related to attitude change in children towards people with disabilities, in the development of the “It’s About Ability” programme, may have impacted its potential effectiveness. Lastly, there were unforeseen changes to the programme protocol. With a decrease in curriculum time made available, sessions nine and 10 were condensed into a single final session. Compromised delivery of the content and a reduction in the programme duration may have impacted effectiveness of the intervention.

Notwithstanding the limitations that have been cited, the current study also featured a number of strengths. One strength was the pre–post design with repeated measures, and the inclusion of a waitlist control group. Use of a control group aims to provide a maximum contrast with the intervention under investigation, and assists by ruling out or controlling for extraneous variables (Barker, Pistrang, & Elliott, 2002). Another strength was the high participant rate among those eligible with excellent retention. The risk of contamination between the intervention and waitlist control groups was minimised by allocating participants

to groups based on the schools they attended, which were in different geographical locations. In addition, analysis of covariance was used to equate the intervention and waitlist control groups when significant differences were detected at baseline.

The current study used instruments that have been psychometrically tested to be valid and reliable in previous studies, and which were appropriate for the age of the participants. These included assessment of the emotional component of attitude. The study design also incorporated a follow-up measure for the intervention group. Collection of follow-up data is critical to ascertain whether an intervention has enduring effects. Evidence from other manualised programmes for children suggests that while attitude improvements may be apparent in the short term, they may disappear over time (Watson et al., 2004). The measure employed, together with the collection of follow-up data, enhanced the likelihood of valid study findings.

Additional strengths of the study were the use of a fidelity measure, the formal recording of participant attendance, and a measure of programme satisfaction. The “It’s About Ability” programme was delivered at various classrooms and times, and by different facilitators. Checklists, completed by the facilitators, helped to ascertain the fidelity with which the “It’s About Ability” programme was implemented. In addition, the class roll was taken by the classroom teacher at the beginning of each session, and the partial or full absence of programme participants for the one hour and 45 minute period was recorded. Lastly, programme satisfaction was measured via the CCS Disability Action teacher evaluations, which were completed at the final session. These evaluations not only provided a measure of social validity, but supplied valuable feedback that could be considered for future implementation of the “It’s About Ability” programme.

Implications for Practice

There is likely no single solution to enhance more positive attitude outcomes, and as with the multi-component approach of the programme itself, it is impossible to say which of the above variables contributed more or less to the lack of overall effect. With a focus on factors that are within the control of the programme organiser, the method with which the content is imparted warrants the greatest attention. In summary, a more streamlined delivery, that is less didactic and more interactive, is paramount for the target age group. Secondly, all facilitators should be well-trained, not only in the programme itself, but in the effective teaching methods relevant to the developmental stage of the participants. Finally, more practical and effective use of classroom teachers to assist with engaging and motivating students is strongly recommended. The direct involvement of teachers also provides the opportunity for them to signal their appreciation and valuing of diversity, and supportive teacher views have been shown to assist in generating positive social outcomes (Grütter & Meyer, 2014).

The present study was feasible to carry out, acceptable to all stakeholders, and appropriate to the target population. However, as the study sample was small, non-randomised, and based on only two schools, it is difficult to assess the generalisability of the research findings. While this study may be viewed as an adequate pilot, it is recommended that this type of project be replicated in a larger number of schools. This would ameliorate some of the limitations demonstrated in the current study, and might allow for a more comprehensive evaluation of the “It’s About Ability” programme.

The assessment of attitude used in the current study was limited to measuring behavioural and affective components of attitude. Future studies should employ instruments that assess all three dimensions of attitude, including the cognitive component to gain a fuller understanding of the process of attitude change in this age group. As cited in previous

reviews (Beelmann & Heinemann, 2014; Leigers & Myers, 2015), future studies should also incorporate assessment of actual behaviour towards peers with disabilities to test whether in fact improved attitudes translate into improved behaviour.

Implications for Future Research

The incorporation of training in empathy and perspective taking has yielded the highest effect sizes in manualised programmes to improve intergroup attitudes (Beelmann & Heinemann, 2014). While research has indicated that empathy training can be successfully implemented in the school setting, the ability to respond empathically is recognised as a complex skill (Stetson, Hurley, & Miller, 2003). Methods of empathy training are diverse, and have included, simulation activity, role play to experience discriminatory behaviour, visual media depicting the life of peers with disabilities, discussing and reflecting upon the concepts of discrimination and prejudice, and distinguishing between fact and stereotype (Lockhart, French, & Gench, 1998). Future research is recommended to identify which type of empathy training is most effective in producing positive attitude outcomes towards peers with disabilities.

The results of the current study highlighted a significant improvement in post-test attitude scores for the intervention sub-group that comprised the “extension class”. It may be that children in this class responded more favourably to the “It’s About Ability” programme because they were identified as higher academic achievers than children in the other intervention sub-groups. Children who are high academic achievers often assume leadership roles in the school environment, and have the capacity to influence the attitudes of their peers. Dissemination of more positive attitudes towards peers with disabilities, and the promotion of full social inclusion may be achieved by targeting programmes towards higher academic achievers. Further investigation in this area is encouraged.

In general, there is a paucity of research that has directly measured the association between attitudes and empathy in children towards peers with a disability. The current study revealed a significant positive correlation for both groups. As far as the researcher is aware, this association has not before been demonstrated in this age group. While this makes an important contribution to research in this area, further investigation is required to corroborate these preliminary findings.

Conclusion

Manualised disability awareness programmes have been implemented with students around the world to improve attitudes towards people with disabilities, often as one off interventions, and sometimes incorporated as part of the school curriculum. School is the setting in which children spend much of their waking day devoted to, not only academic pursuits, but honing important social skills such as forming friendships (Hurst, Corning, & Ferrante, 2012). The intervention evaluated in the present study recognises school as an ideal venue for challenging negative attitudes towards peers with disabilities, and promoting social inclusion. The “It’s About Ability” programme showed some promising results in relation to improved attitudes, particularly with students who were higher academic achievers. Consideration of previously cited recommendations may enhance future programme outcomes in relation to attitude and empathy. Analysis of outcome variables indicated a significant positive correlation between children’s attitudes and empathy which was apparent up to nine weeks following the intervention. The finding of this association in a pre-adolescent population, and specifically related to peers with a disability, represents a notable contribution to existing research in this field. Further research is encouraged on the empathy-attitude effect to unlock the potential for manualised disability awareness interventions to show greater effectiveness in educational settings.

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Appendix A

Ethics Approval

HUMAN ETHICS COMMITTEE

Secretary, Lynda Griffioen
Email: human-ethics@canterbury.ac.nz



Ref: 2015/12/ERHEC

8 June 2015

Samantha MacGibbon
School of Health Sciences
UNIVERSITY OF CANTERBURY

Dear Samantha

Thank you for providing the revised documents in support of your application to the Educational Research Human Ethics Committee. I am very pleased to inform you that your research proposal "The effects of "It's About Ability", a manualised disability awareness training programme on the attitudes and empathy of school students" has been granted ethical approval.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 5 June 2015.

Should circumstances relevant to this current application change you are required to reapply for ethical approval.

If you have any questions regarding this approval, please let me know.

We wish you well for your research.

Yours sincerely

A handwritten signature in dark ink, appearing to read 'N Surtees', with a stylized, cursive script.

Nicola Surtees
Chair
Educational Research Human Ethics Committee

"Please note that Ethical Approval and/or Clearance relates only to the ethical elements of the relationship between the researcher, research participants and other stakeholders. The granting of approval or clearance by the Ethical Clearance Committee should not be interpreted as comment on the methodology, legality, value or any other matters relating to this research."

Appendix B

CCS Disability Action Approval

Samantha MacGibbon
School of Health Sciences, College of Education, Health and Human
Development, University of Canterbury
Private Bag 4800
Christchurch 8140
Telephone: +64 2191 7727
Email: samantha.macgibbon@pg.canterbury.ac.nz



The effects of "It's About Ability", a manualised disability awareness programme, on the attitudes and empathy of school students.

Consent Form for CCS Disability Action

We have been given a full explanation of this study and the opportunity to ask questions and have them answered. We understand what will be required if we agree to the research project being carried out.

We understand that participation in this study is voluntary and that any student, school or facilitator may withdraw at any stage without penalty. It is also understood that if this occurs, all information regarding that participant will be removed from the study and destroyed.

We understand that any information or opinion a participant provides will be kept confidential to the researcher, and that any published or reported results will not identify any student, school or facilitator.

We understand that all data collected for this study will be kept in locked and secure storage facilities at the University of Canterbury and will be destroyed after five years.

We understand that we will receive a full report on the findings of the study, which will be posted to us following the study's completion.

We understand that if we, collectively or individually, require further information we can contact the researcher, Samantha MacGibbon, or her supervisor, Kathleen Liberty. If any of us have any complaints we can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee.

By signing below, we give consent for this research project to proceed.

Name (please print) Ruth Teardale Title Regional Manager
on behalf of CCS Disability Action, Canterbury West Coast

Signature [Signature] Date 26th June 2015

The researcher will collect this consent form from the Programme Director on 24th June, or it can be scanned and emailed to samantha.macgibbon@pg.canterbury.ac.nz.

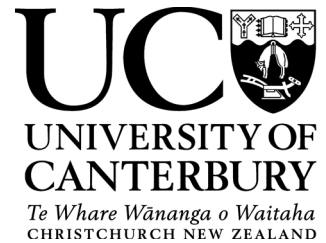
Thank you for your time.

Samantha MacGibbon

Appendix C

Consent Forms

Samantha MacGibbon
School of Health Sciences, College of Education,
Health and Human Development
University of Canterbury
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Christchurch 8140
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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Consent Form for Principal

I have been given a full explanation of this study and the opportunity to ask questions and have them answered. I understand what will be required if I agree to our school and students taking part in this study.

I understand that participation in this study is voluntary and that any student may withdraw at any stage without penalty. It is also understood that if a student withdraws, all information regarding that student will be removed from the study and destroyed.

I understand that any information or opinions a student provides will be kept confidential to the researcher and that any published or reported results will not identify any student or the school.

I understand that all data collected for this study will be kept in locked and secure storage facilities at the University of Canterbury and will be destroyed after five years.

I understand that we will receive a report on the findings of the study, which will be posted to the school.

I understand that if I require further information, I can contact the researcher, Samantha MacGibbon, or her supervisor, Kathleen Liberty. If I have any complaints I can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee.

By signing below, I give consent for our school and our students to participate in this study.

Name of Principal (please print) _____

Name of School _____

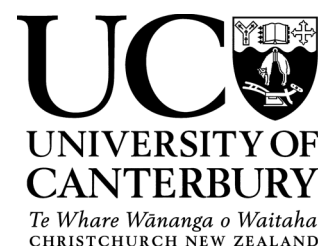
Signature _____ Date _____

This consent form can be scanned and emailed to samantha.macgibbon@pg.canterbury.ac.nz.
Alternatively, please pass this form to the school office, and the researcher will collect it on
day/month.

Thank you for your time.

Samantha MacGibbon

Samantha MacGibbon
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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Consent Form for Board of Trustees

We have been given a full explanation of this study and the opportunity to ask questions and have them answered. We understand what will be required if we agree to our school and students taking part in this study.

We understand that participation in this study is voluntary and that any student may withdraw at any stage without penalty. It is also understood that if a student withdraws, all information regarding that student will be removed from the study and destroyed.

We understand that any information or opinions a student provides will be kept confidential to the researcher and that any published or reported results will not identify any student or the school.

We understand that all data collected for this study will be kept in locked and secure storage facilities at the University of Canterbury and will be destroyed after five years.

We understand that we will receive a report on the findings of the study, which will be posted to the school.

We understand that if we, collectively or individually, require further information we can contact the researcher, Samantha MacGibbon, or her supervisor, Kathleen Liberty. If any of us have any complaints we can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee.

By signing below, we give consent for our school and our students to participate in this study.

Representative, Board of Trustees (please print name)

Name of School _____

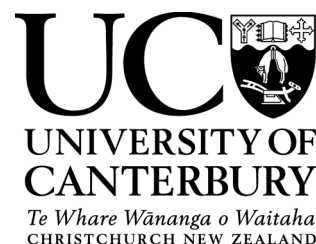
Signature _____ Date _____

This consent form can be scanned and emailed to samantha.macgibbon@pg.canterbury.ac.nz. Alternatively, please pass this form to the school office, and the researcher will collect it on day/month.

Thank you for your time.

Samantha MacGibbon

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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Consent Form for Teacher(s)

We have been given a full explanation of this study and the opportunity to ask questions and have them answered. We understand what will be required if we agree to our school and students taking part in this study.

We understand that participation in this study is voluntary and that any student may withdraw at any stage without penalty. It is also understood that if a student withdraws, all information regarding that student will be removed from the study and destroyed.

We understand that any information or opinions a student provides will be kept confidential to the researcher and that any published or reported results will not identify any student or the school.

We understand that all data collected for this study will be kept in locked and secure storage facilities at the University of Canterbury and will be destroyed after five years.

We understand that we will receive a report on the findings of the study, which will be posted to the school.

We understand that if we, collectively or individually, require further information we can contact the researcher, Samantha MacGibbon, or her supervisor, Kathleen Liberty. If any of us have any complaints we can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee.

By signing below, we give consent for our school and our students to participate in this study.

Name of School _____

Teacher Name (please print) _____

Signature _____ Date _____

Teacher Name (please print) _____

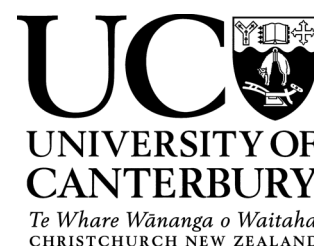
Signature _____ Date _____

This consent form can be scanned and emailed to samantha.macgibbon@pg.canterbury.ac.nz. Alternatively, please pass this form to the school office, and the researcher will collect it on day/month.

Thank you for your time.

Samantha MacGibbon

Samantha MacGibbon
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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Consent Form for Parent/Caregiver

I have been given a full explanation of this study and have been given the opportunity to ask questions. I understand what will be required of my child if I agree to them taking part in this study.

I understand that my child’s participation is voluntary and that they may withdraw at any stage without penalty. It is also understood that if my child withdraws, all information regarding my child will be removed from the study and destroyed.

I understand that any information or opinions my child provides will be kept confidential to the researcher and that any published or reported results will not identify my child or my child’s school.

I understand that all data collected for this study will be kept in locked and secure storage facilities at the University of Canterbury and will be destroyed after five years.

I understand that I am able to receive a report on the findings of the study. If I am interested in receiving this, I will provide my email address details below.

I understand that if I require further information, I can contact the researcher, Samantha MacGibbon, or her supervisor, Kathleen Liberty. If I have any complaints I can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee.

By signing below, I am declaring that I have read and understood the statements above and give consent for my child to participate in this study.

Name (please print) _____

Your child’s name (please print) _____

Your signature _____ Date _____

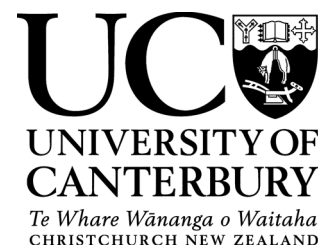
Email address for report _____

Please return this consent form, in the envelope provided, to your child's teacher by day/month.

Thank you for your time.

Samantha MacGibbon

Samantha MacGibbon
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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Consent Form for Student

I have read the information sheet and understand what I need to do if I take part in this study.

I understand that any information collected about me will only be used by Samantha, and that it will be kept confidential and stored in a safe place. After the study has been written up, my information will be destroyed. Samantha will not use my name or my school’s name in any part of the study.

I understand that I can change my mind at any time about being in this study, and pull out if I want to and not complete Samantha’s questionnaire.

I can receive a short report on the results of the study, and will write my email address below if I want this to be sent to me. I can also ask Samantha if I have any questions or want more information about this study. If I have any complaints about this study, I can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee.

I agree to participate in this study and my parent/caregiver has also given consent on their consent form.

Full name (student) _____

Class _____ Class Teacher _____

Signature (student) _____ Date _____

Email address for report _____

Please return this consent form, in the envelope provided, to your class teacher by day/month.

Thank you for your time.

Samantha MacGibbon

Samantha MacGibbon
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Development, University of Canterbury
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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Consent Form for Lead Programme Facilitator

I have been given a full explanation of this study and the opportunity to ask questions and have them answered. I understand what will be required if I agree to take part in this study.

I understand that participation in this study is voluntary and that I may withdraw at any stage without penalty. It is also understood that if I withdraw, all information collected from me will be removed from the study and destroyed.

I understand that any information or opinions I provide will be kept confidential to the researcher and that any published or reported results will not identify me.

I understand that all data collected for this study will be kept in locked and secure storage facilities at the University of Canterbury and will be destroyed after five years.

I understand that I am able to receive a report on the findings of the study. If I am interested in receiving this, I will provide my email address details below.

I understand that if I require further information, I can contact the researcher, Samantha MacGibbon, or her supervisor, Kathleen Liberty. If I have any complaints I can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee.

By signing below, I am declaring that I have read and understood the statements above and give consent to participate in this study.

Facilitator Name (please print) _____

Signature _____ Date _____

Email address for report _____

The researcher will collect this consent form from the Programme Director on 24th June, or it can be scanned and emailed to samantha.macgibbon@pg.canterbury.ac.nz

Thank you for your time.

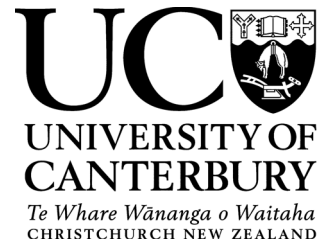
Samantha MacGibbon

Appendix D

Information Sheets



Samantha MacGibbon
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Private Bag 4800, Christchurch 8140
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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Information Sheet for CCS Disability Action

My name is Samantha MacGibbon and I am completing a Master’s thesis in Child and Family Psychology. The aim of my research is to explore the effects of disability awareness training on children’s level of empathy and attitudes towards people with disabilities.

I would like to invite the schools and students who receive the “It’s About Ability” disability awareness programme, and the lead facilitators who deliver the programme, to participate in my study. I am happy to meet with you to discuss the study further and answer any questions you may have.

If CCS Disability Action, the school principals, boards of trustees, teachers, and parents/caregivers allow the participation of the students and facilitators, and the students and facilitators themselves agree to participate, the steps in the project would involve:

Student Questionnaires at the beginning of Term 3, the end of Term 3, and in Term 4 (mid-Nov). Consenting students will complete a questionnaire in their classroom at school. I will attend the schools to administer the questionnaires, each of which should take around ten minutes to complete. All data will be summarised and averaged. In addition, the classroom teacher will record each student’s attendance at the disability awareness training sessions.

Facilitator Checklists. Consenting lead facilitators will complete a checklist at each programme session. The checklist will include the planned items to be delivered, the start and finish time of the session, and the number of students in attendance. Completion of the checklist should take around five minutes.

Right to withdraw at any time. The Principal, Board of Trustees, Teacher, parent/caregiver, child and programme facilitator have the right to withdraw from the study at any time without penalty. If this occurs, any information relating to the school, student or facilitator will not be included in the study and will be destroyed, provided that this remains practically achievable.

Confidentiality. The following steps will be taken to ensure confidentiality. The identity of the school, principal, board of trustees representative, teacher, parent/caregiver, child and facilitator will remain anonymous with the use of a numbering system known only to me, and my supervisors. Facilitator checklists and all coded data collected from students will be accessible only by me, and by my supervisors prior to submission of my thesis. All data, including signed consent forms, will be stored securely in password protected files and locked storage at the University, and will be destroyed five years following the study completion.

CCS Disability Action “It’s About Ability” Participant Evaluations. The researcher will have access to the information from student evaluations administered by CCS Disability Action Lead Facilitators on commencing and completing the “It’s About Ability” programme. All information collected from student evaluations will be treated by the researcher with the same level of confidentiality as other information collected by the researcher for this study.

Publication of results. Data from this study will be published in a thesis, and a report will be given to CCS Disability Action. Data from this study will also be made available to other interested agencies and researchers. The findings of this study may be submitted for publication to national or international journals, and may be presented at educational conferences. A summary of the study findings will be posted to the school on completion of the project. Parents, students, and programme facilitators will have the opportunity to receive the summary study findings if they provide their email address on their consent forms.

Funding. This study is being sponsored by CCS Disability Action Canterbury West Coast, who will be conducting the disability awareness programme, “It’s About Ability” in the participating school(s).

Approval and Complaints Processes. This study has received ethical approval from the University of Canterbury Educational Research Human Ethics Committee. Should you have any complaints about the study, please address them to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If CCS Disability Action agrees for this research project to proceed, please complete the attached consent form. I will collect the signed consent form from the Programme Director, or it can be scanned and emailed to me at samantha.macgibbon@pg.canterbury.ac.nz.

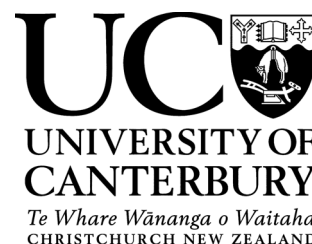
If you have any questions at any stage, or would like further information regarding the project, please don’t hesitate to contact me (details above) or my supervisor, Kathleen Liberty, on (03) 364 2545 or at kathleen.liberty@canterbury.ac.nz.

Thank you.

Samantha MacGibbon



Samantha MacGibbon
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Email: samantha.macgibbon@pg.canterbury.ac.nz



The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Information Sheet for Principal

My name is Samantha MacGibbon and I am completing a Master’s thesis in Child and Family Psychology. The aim of my research is to explore the effects of disability awareness training on children’s level of empathy and attitudes towards people with disabilities.

I would like to invite your school and students to participate in my study, and am happy to meet with you to discuss the study further and answer any questions you may have.

Student Questionnaires at the beginning of Term 3, the end of Term 3, and mid Term 4. Consenting students will complete a short questionnaire in class at school. I will come to the school to administer the questionnaires, each of which should take around ten minutes to complete. All data will be summarised and averaged. In addition, the classroom teacher will record each student’s attendance at the disability awareness training sessions.

If you decide to allow the participation of your students, the steps in the project would involve:

1. Please complete the attached consent form and scan and email it to me at samantha.macgibbon@pg.canterbury.ac.nz.
2. I will deliver parent/caregiver and student information sheets and consent forms and sealable return envelopes to the class teacher(s).
3. The teacher will send parent/caregiver and student information sheets and consent forms, and a sealable return envelope home with each student.
4. Students will be required to return both their consent form and their parent/caregiver’s consent form to the school by day/month.
5. Once all signed consent forms have been returned to the teacher, the teacher will email me, and I will come to the school and collect them from the teacher.
6. I will administer questionnaires to the student participants in their classroom at the beginning of Term 3, the end of Term 3, and in the middle of Term 4 (exact dates/times to be arranged with the teacher). At this time, I will collect all completed questionnaires.

Right to withdraw at any time. The Principal, Board of Trustees, Teacher, parent/caregiver and student have the right to withdraw from the study at any time without penalty. If this occurs, any information relating to your school or any student will not be included in the

study and will be destroyed, provided that this remains practically achievable. Please inform me if you wish to withdraw.

Confidentiality. The following steps will be taken to ensure confidentiality. The identity of the school, principal, board of trustees representative, teacher, parent/caregiver and child will remain anonymous with the use of a numbering system known only to me, and my supervisors. All coded data collected from students, will be accessible only by me, and by my supervisors prior to submission of my thesis. All data, including signed consent forms, will be stored securely in password protected files and locked storage at the University, and will be destroyed five years following the study completion.

CCS Disability Action “It’s About Ability” Participant Evaluations. The researcher will have access to the information from student evaluations administered by CCS Disability Action Lead Facilitators on commencing and completing the “It’s About Ability” programme. All information collected from student evaluations will be treated by the researcher with the same level of confidentiality as other information collected by the researcher for this study.

Publication of results. Data from this study will be published in a thesis, and a report will be given to CCS Disability Action. Data from this study will also be made available to other interested agencies and researchers. The findings of this study may be submitted for publication to national or international journals, and may be presented at educational conferences. A summary of the study findings will be posted to the school on completion of the project. Parents, students, and programme facilitators will have the opportunity to receive the summary study findings if they provide their email address on their consent forms.

Funding. This study is being sponsored by CCS Disability Action Canterbury West Coast, who will be conducting the disability awareness programme, “It’s About Ability” in your school.

Approval and Complaints Processes. This study has received ethical approval from the University of Canterbury Educational Research Human Ethics Committee. Should you have any complaints about the study, please address them to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

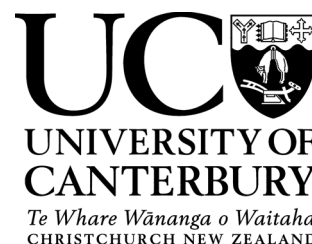
If you have any questions at any stage, or would like further information about the study, please don’t hesitate to contact me (details above) or my supervisor, Kathleen Liberty, on (03) 364 2545 or at kathleen.liberty@canterbury.ac.nz.

Thank you for considering participation in this study.

Samantha MacGibbon



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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Information Sheet for Board of Trustees

My name is Samantha MacGibbon and I am completing a Master’s thesis in Child and Family Psychology. The aim of my research is to explore the effects of disability awareness training on children’s level of empathy and attitudes towards people with disabilities.

I would like to invite your school and students to participate in my study, and am happy to meet with you to discuss the study further and answer any questions you may have.

Student Questionnaires at the beginning of Term 3, the end of Term 3, and mid Term 4. Consenting students will complete a short questionnaire in class at school. I will come to the school to administer the questionnaires, each of which should take around ten minutes to complete. All data will be summarised and averaged. In addition, the classroom teacher(s) will record each student’s attendance at the disability awareness training sessions.

If the Board of Trustees decides to allow the participation of its students, the steps in the project would involve:

1. Please complete the attached consent form and scan and email it to me at samantha.macgibbon@pg.canterbury.ac.nz.
2. I will deliver parent/caregiver and student information sheets and consent forms and sealable return envelopes to the class teacher(s).
3. The teacher will send parent/caregiver and student information sheets and consent forms, and a sealable return envelope home with each student.
4. Students will be required to return both their consent form and their parent/caregiver’s consent form to the school by day/month.
5. Once all signed consent forms have been returned to the teacher, the teacher will email me, and I will come to the school and collect them from the teacher.
6. I will administer questionnaires to the student participants in their classroom at the beginning of Term 3, the end of Term 3, and in the middle of Term 4 (exact dates/times to be arranged with the teacher). At this time, I will collect all completed questionnaires.

Right to withdraw at any time. The Principal, Board of Trustees, Teacher, parent/caregiver and child have the right to withdraw from the study at any time without penalty. If this occurs, any information relating to your school or any student will not be included in the

study and will be destroyed, provided that this remains practically achievable. Please inform me if you wish to withdraw.

Confidentiality. The following steps will be taken to ensure confidentiality. The identity of the school, principal, board of trustees representative, teacher, parent/caregiver and child will remain anonymous with the use of a numbering system known only to me, and my supervisors. All coded data collected from students, will be accessible only by me, and by my supervisors prior to submission of my thesis. All data, including signed consent forms, will be stored securely in password protected files and locked storage at the University, and will be destroyed five years following the study completion.

CCS Disability Action “It’s About Ability” Participant Evaluations. The researcher will have access to the information from student evaluations administered by CCS Disability Action Lead Facilitators on commencing and completing the “It’s About Ability” programme. All information collected from student evaluations will be treated by the researcher with the same level of confidentiality as other information collected by the researcher for this study.

Publication of results. Data from this study will be published in a thesis, and a report will be given to CCS Disability Action. Data from this study will also be made available to other interested agencies and researchers. The findings of this study may be submitted for publication to national or international journals, and may be presented at educational conferences. A summary of the study findings will be posted to the school on completion of the project. Parents, students, and programme facilitators will have the opportunity to receive the summary study findings if they provide their email address on their consent forms.

Funding. This study is being sponsored by CCS Disability Action Canterbury West Coast, who will be conducting the disability awareness programme, “It’s About Ability” in your school.

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If you have any questions at any stage, or would like further information about the study, please don’t hesitate to contact me (details above) or my supervisor, Kathleen Liberty, on (03) 364 2545 or at kathleen.liberty@canterbury.ac.nz.

Thank you for considering participation in this study.

Samantha MacGibbon



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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Information Sheet for Teacher(s)

My name is Samantha MacGibbon and I am completing a Master’s thesis in Child and Family Psychology. The aim of my research is to explore the effects of disability awareness training on children’s level of empathy and attitudes towards people with disabilities.

I would like to invite your school and students to participate in my study, and am happy to meet with you to discuss the study further and answer any questions you may have.

Student Questionnaires at the beginning of Term 3, the end of Term 3, and mid Term 4. Consenting students will complete a short questionnaire in class at school. I will come to the school to administer the questionnaires, each of which should take around ten minutes to complete. I will also have access to information from student evaluations carried out during the programme. All data collected will be summarised and averaged. As the classroom teacher, you will be asked to record each student’s attendance at the disability awareness training sessions.

If you, your school, and your students decide to participate, the steps in the project would involve:

1. Please complete the attached consent form and scan and email it to me at samantha.macgibbon@pg.canterbury.ac.nz.
2. I will deliver parent/caregiver and student information sheets and consent forms and sealable return envelopes to the class teacher(s).
3. The teacher will send parent/caregiver and student information sheets and consent forms, and a sealable return envelope home with each student.
4. Students will be required to return both their consent form and their parent/caregiver’s consent form to the school by day/month.
5. Once all signed consent forms have been returned to the teacher, please email me at samantha.macgibbon@pg.canterbury.ac.nz, and I will come to the school and collect them from the teacher.
6. I will administer questionnaires to the student participants in their classroom at the beginning of Term 3, the end of Term 3, and in the middle of Term 4 (exact dates/times to be arranged with the teacher). At this time, I will collect all completed questionnaires.

Right to withdraw at any time. The Principal, Board of Trustees, Teacher, parent/caregiver and child have the right to withdraw from the study at any time without penalty. If this occurs, any information relating to your school or any student will not be included in the study and will be destroyed, provided that this remains practically achievable. Please inform me if you wish to withdraw.

Confidentiality. The following steps will be taken to ensure confidentiality. The identity of the school, principal, board of trustees representative, teacher, parent/caregiver and child will remain anonymous with the use of a numbering system known only to me, and my supervisors. All coded data collected from students, will be accessible only by me, and by my supervisors prior to submission of my thesis. All data, including signed consent forms, will be stored securely in password protected files and locked storage at the University, and will be destroyed five years following the study completion.

CCS Disability Action “It’s About Ability” Participant Evaluations. The researcher will have access to the information from student evaluations administered by CCS Disability Action Lead Facilitators on commencing and completing the “It’s About Ability” programme. All information collected from student evaluations will be treated by the researcher with the same level of confidentiality as other information collected by the researcher for this study.

Publication of results. Data from this study will be published in a thesis, and a report will be given to CCS Disability Action. Data from this study will also be made available to other interested agencies and researchers. The findings of this study may be submitted for publication to national or international journals, and may be presented at educational conferences. A summary of the study findings will be posted to the school on completion of the project. Parents, students, and programme facilitators will have the opportunity to receive the summary study findings if they provide their email address on their consent forms.

Funding. This study is being sponsored by CCS Disability Action Canterbury West Coast, who will be conducting the disability awareness programme, “It’s About Ability” in your school.

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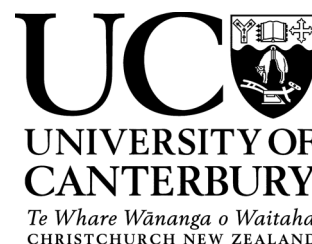
If you have any questions at any stage, or would like further information about the study, please don’t hesitate to contact me (details above) or my supervisor, Kathleen Liberty, on (03) 364 2545 or at kathleen.liberty@canterbury.ac.nz.

Thank you for considering participation in this study.

Samantha MacGibbon



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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Information Sheet for Parent/Caregiver

My name is Samantha MacGibbon and I am completing a Master’s thesis in Child and Family Psychology. The aim of my research is to explore the effects of disability awareness training on children’s level of empathy and attitudes towards people with disabilities.

I would like to invite your child to participate in my study by filling in a short questionnaire at school, which should take around ten minutes to complete. I will ask your child to fill in the questionnaire at two or three different times this year. I will also have access to information from student evaluations carried out during the programme. All data collected will be summarised and averaged.

Participation in the study is voluntary and your child can withdraw at any stage without penalty. If this occurs, any information relating to your child will not be included in the study and will be destroyed, provided that this remains practically achievable. Your child will be asked to fill in their own consent form should they agree to participate in the study.

I will take care to ensure the confidentiality of all data gathered for this study. I will also take care to ensure anonymity in publications of the findings. Coded data will be accessible only by me, and by my supervisors prior to submission of my thesis. All data will be stored securely in password protected files and locked storage at the University, and will be destroyed five years following the study.

Data from this study will be published in a thesis and possibly in academic journals, and may be presented at educational conferences. You will have the opportunity to view a summary of the study findings on completion of the research project. If you would like to receive this information, please provide your email address on the consent form. If you have any questions at any stage, or would like more information about the study, you can contact me (details above), or my supervisor, Kathleen Liberty, on (03) 364 2545 or at kathleen.liberty@canterbury.ac.nz.

This project has received ethical approval from the University of Canterbury Educational Research Human Ethics Committee. Should you have any complaints, please address them to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

You and your child will be given separate consent forms. If you understand all of the above information and agree to take part in this study, please sign the parent/caregiver consent form, place it with your child's signed consent form in the envelope provided, and return it to your child's teacher by day/month.

Thank you for your time.

Samantha MacGibbon



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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Information Sheet for Student

My name is Samantha MacGibbon and I am a Master’s student at the University of Canterbury. My research will look at the attitudes and opinions of students your age regarding people with disabilities.

I would like to invite you to participate in my study by filling in a short questionnaire at school. It should take around ten minutes to complete. I will ask you to fill in the questionnaire at two or three different times this year. I will also look at the information you write down during the disability programme. All your answers will be summarised as numbers and averaged.

You can choose whether or not you would like to take part in the study, and you can pull out at any time if you do not want to continue. If you do pull out, any information you have given me will be destroyed where possible.

If you decide to take part in the study, any information you give me will stay confidential and will be stored securely so no one else can see it. Your name and your school’s name will not be used in the study. All information you give me will be destroyed after the study has finished.

If you would like to receive information on the results of the study, you can write your email address on the consent form, and I will send it to you.

If you have any questions at any stage, or would like more information about the study, you can contact me via email or telephone. My details are above.

This study has received ethical approval from the University. If you have any complaints you can write to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, or send an email to them at human-ethics@canterbury.ac.nz

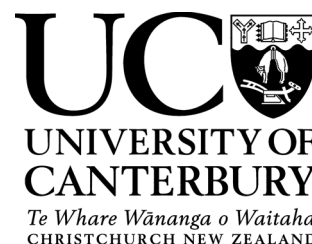
You and your parent/caregiver will be given consent forms. If you understand all of the above information and agree to take part in this study, please sign the consent form, place it with your parent’s signed consent form in the envelope provided, and return it to your teacher by day/month.

Thank you for taking part in this study.

Samantha MacGibbon



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The effects of “It’s About Ability”, a manualised disability awareness programme, on the attitudes and empathy of school students.

Information Sheet for Lead Programme Facilitator

My name is Samantha MacGibbon and I am completing a Master’s thesis in Child and Family Psychology. The aim of my research is to explore the effects of disability awareness training on children’s level of empathy and attitudes towards people with disabilities.

As part of the “It’s About Ability” programme, I would like to invite students to participate in my study by filling in a short questionnaire in class. I will administer the questionnaire one week prior to, one week following, and 6-8 weeks following the programme. I will also have access to information from the student evaluations you administer during the programme.

I would like to invite you to complete a facilitator’s checklist at the end of each session you deliver. The checklist will include the planned items to be delivered, the start and finish time of the session, and the number of students in attendance. Completion of the checklist should take around five minutes.

Participation in the study is voluntary and you can withdraw at any stage without penalty. If this occurs, any information relating to you will not be included in the study and will be destroyed, provided that this remains practically achievable.

I will take care to ensure the confidentiality of all data gathered for this study. I will also take care to ensure anonymity of participants in publications of the findings. Coded data will be accessible only by me, and by my supervisors prior to submission of my thesis. All data will be stored securely in password protected files and locked storage at the University, and will be destroyed five years following the study.

Data from this study will be published in a thesis and possibly in academic journals, and may be presented at educational conferences. You will have the opportunity to view a summary of the study findings on completion of the research project. If you would like to receive this information, please provide your email address on the consent form. If you have any questions at any stage, or would like more information about the study, you can contact me (details above), or my supervisor, Kathleen Liberty, on (03) 364 2545 or at kathleen.liberty@canterbury.ac.nz.

This project has received ethical approval from the University of Canterbury Educational Research Human Ethics Committee. Should you have any complaints, please address them to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you understand all of the above information and agree to take part in this study, please sign the consent form attached and return it to the Programme Director by 24th June.

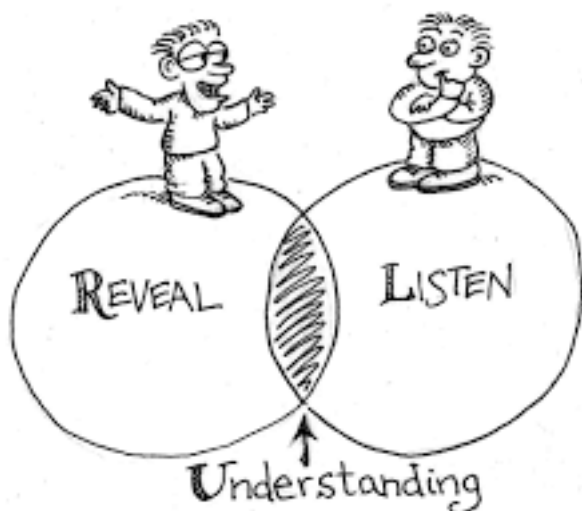
Thank you for your time.

Samantha MacGibbon

Appendix E

Pre-Test Questionnaire

Name _____



Dear Student,

This questionnaire will help us understand more about your class before we start a new programme, "It's About Ability".

Over the page is a list of statements.

Please read each statement carefully and circle the answer that best explains your feelings about that statement.

All your answers will be confidential. All answers will be summarized as numbers and averaged.

Thank you very much for your participation,

The "It's About Ability" Team

1. When I see a kid who is upset it really bothers me.

No	Maybe	Yes
----	-------	-----

2. I would feel bad if my Mum's friend got sick.

No	Maybe	Yes
----	-------	-----

3. I would be happy to have a kid with a disability for a friend.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

4. It would bother me if my friend got grounded.

No	Maybe	Yes
----	-------	-----

5. I understand how other kids feel.

No	Maybe	Yes
----	-------	-----

6. I would enjoy being with a kid with a disability.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

7. I would feel bad if the kid sitting next to me got into trouble.

No	Maybe	Yes
----	-------	-----

8. It bothers me when my teacher doesn't feel well.

No	Maybe	Yes
----	-------	-----

9. I would invite a kid with a disability for a sleep over at my house.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

10. Other people's problems really bother me.

No	Maybe	Yes
----	-------	-----

11. When I'm mean to someone, I usually feel bad about it later.

No	Maybe	Yes
----	-------	-----

12. I feel sorry for kids who can't find anyone to hang out with.

No	Maybe	Yes
----	-------	-----

13. I would like to have a kid with a disability live next door to me.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

14. If two kids are fighting, someone should stop it.

No	Maybe	Yes
----	-------	-----

15. When I see someone who's happy, I feel happy too.

No	Maybe	Yes
----	-------	-----

16. I would tell my secrets to a kid with a disability.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

17. I'm happy when the teacher says my friend did a good job.

No	Maybe	Yes
----	-------	-----

18. Seeing a kid who is crying makes me feel like crying.

No	Maybe	Yes
----	-------	-----

19. I would be pleased if a kid with a disability invited me to his/her house.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

20. I would get upset if I saw someone hurt an animal.

No	Maybe	Yes
----	-------	-----

21. I would feel good doing a school project with a kid with a disability.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

22. I feel happy when my friend gets a good grade.

No	Maybe	Yes
----	-------	-----

23. Are you male or female?

Male	Female
------	--------

24. What age are you?

10 years	11 years	12 years	13 years	14 years
----------	----------	----------	----------	----------

25. Please tick the box(es) which best identifies your ethnicity.

NZ European	Māori	Samoan	Cook Island Māori
Tongan	Niuean	Chinese	Indian
Dutch	Japanese	Other (please state)	

26. Do you have a disability?

Yes	No	Not sure
-----	----	----------

27. Do you have a *friend* with a disability?

Yes	No	Not sure
-----	----	----------

28. Do you have a *family member or relative* with a disability?

Yes	No	Not sure
-----	----	----------

29. Have you had *contact* with a person with a disability in the last week?

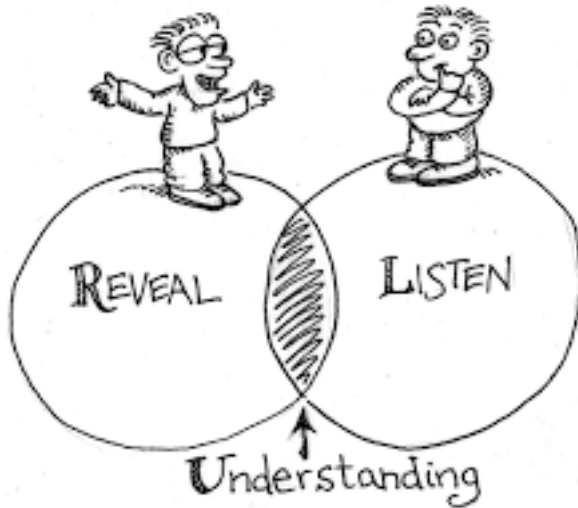
Yes	No	Not sure
-----	----	----------

Thank you!!

Appendix F

Post-Test and Follow-up Questionnaire

Name _____



Dear Student,

This questionnaire will help us understand more about your class now that you have completed the programme, "It's About Ability".

Over the page is a list of statements.

Please read each statement carefully and circle the answer that best explains your feelings about that statement.

All your answers will be confidential. All answers will be summarised as numbers and averaged.

Thank you very much for your participation,

The "It's About Ability" Team

1. When I see a kid who is upset it really bothers me.

No	Maybe	Yes
----	-------	-----

2. I would feel bad if my Mum's friend got sick.

No	Maybe	Yes
----	-------	-----

3. I would be happy to have a kid with a disability for a friend.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

4. It would bother me if my friend got grounded.

No	Maybe	Yes
----	-------	-----

5. I understand how other kids feel.

No	Maybe	Yes
----	-------	-----

6. I would enjoy being with a kid with a disability.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

7. I would feel bad if the kid sitting next to me got into trouble.

No	Maybe	Yes
----	-------	-----

8. It bothers me when my teacher doesn't feel well.

No	Maybe	Yes
----	-------	-----

9. I would invite a kid with a disability for a sleep over at my house.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

10. Other people's problems really bother me.

No	Maybe	Yes
----	-------	-----

11. When I'm mean to someone, I usually feel bad about it later.

No	Maybe	Yes
----	-------	-----

12. I feel sorry for kids who can't find anyone to hang out with.

No	Maybe	Yes
----	-------	-----

13. I would like to have a kid with a disability live next door to me.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

14. If two kids are fighting, someone should stop it.

No	Maybe	Yes
----	-------	-----

15. When I see someone who's happy, I feel happy too.

No	Maybe	Yes
----	-------	-----

16. I would tell my secrets to a kid with a disability.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

17. I'm happy when the teacher says my friend did a good job.

No	Maybe	Yes
----	-------	-----

18. Seeing a kid who is crying makes me feel like crying.

No	Maybe	Yes
----	-------	-----

19. I would be pleased if a kid with a disability invited me to his/her house.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

20. I would get upset if I saw someone hurt an animal.

No	Maybe	Yes
----	-------	-----

21. I would feel good doing a school project with a kid with a disability.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

22. I feel happy when my friend gets a good grade.

No	Maybe	Yes
----	-------	-----

Thank you!!

Appendix G

Participant Evaluation 1

It's About Ability – Participant Evaluation 1	
Your name:	Room: Age:
Your School:	Date:
1. Do you know anyone who has an impairment or disability? Yes <input type="checkbox"/> No <input type="checkbox"/>	
2. If you answered “yes” to the first question, how many disabled people do you know? In your family: Among friends or schoolmates: Other disabled people:	
3. Do you have an impairment or disability? Yes <input type="checkbox"/> No <input type="checkbox"/> You can explain if you like but don't have to	
4. Will you need any particular support to participate in the It's About Ability Program? What? You are welcome to talk to Prudence about this	
5. Circle a number to show how comfortable you would feel to talk to a new student in your class who uses a wheelchair: Very uncomfortable 0 1 2 3 4 5 6 7 8 9 10 Very Comfortable	
6. Put an X on this line to show how comfortable you would feel to talk to a new student in your class who takes longer to learn and understand things: Very uncomfortable 0 1 2 3 4 5 6 7 8 9 10 Very Comfortable	
7. The United Nations wants disabled children to access the same rights as other children. Can you name any right you think <i>ALL</i> children should have?	
8. In New Zealand who [people] or what [organisations] protects children's rights?	

Appendix H

Participant Evaluation 2

It's About Ability – Participant Evaluation 2	
Your name:	Room:
	Age:
Your School:	Date:
<p>1. Do you know more about impairment or disability than you did when this program began?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>	
<p>2. If you answered “yes” to the first question, tell about one thing you learned:</p>	
<p>3. Name three rights that you think are important for children to have:</p>	
<p>4. Please rate the It's About Ability program. Tick the statement closest to your experience:</p> <p>A. I got a lot out of the sessions. _____</p> <p>B. I learned a little. _____</p> <p>C. I didn't learn much. _____</p>	
<p>5. Circle a number to show how comfortable you would feel to talk to a new student in your class who uses a wheelchair:</p> <p>Very uncomfortable – 0 1 2 3 4 5 6 7 8 9 10 + Very Comfortable</p>	
<p>6. Put an X on this line to show how comfortable you would feel to talk to a new student in your class who takes longer to learn and understand things:</p> <p>Very uncomfortable – 0 1 2 3 4 5 6 7 8 9 10 + Very Comfortable</p>	
<p>7. The United Nations wants disabled children to access the same rights as other children. Can you name a right you think is not being upheld in some situations.</p>	
<p>8. What would you like to learn more about?</p>	

Appendix I

Post-Programme Teacher Evaluation

It's About Ability – Teacher Survey	
Teacher:	Class Level:
School:	Date:

<p>1. Have children in your class showed a change in attitude towards disability since being involved with It's About Ability?</p> <p>No change - 0 1 2 3 4 5 6 7 8 9 10 + Can discuss disability</p>
<p>2. Are they more aware of human rights and the rights of children with disability?</p> <p>Unaware - 0 1 2 3 4 5 6 7 8 9 10 + Knows some of these rights</p>
<p>3. Have you seen any change in children's behaviours as a result of participating in It's About Ability? If so, what are they?</p>
<p>4. Have any of your class brought up the topic of rights apart from instances related to the It's About Ability program? If so, please give an example / examples:</p>
<p>5. Do you think the children are more aware of diversity in general since participating in the program? If so, please give an example / examples:</p>
<p>6. Have you had any comments or feedback from parents about the program?</p>
<p>7. Do you have any ideas / suggestions of how we can improve how we run the program?</p>

Appendix J

Facilitator Checklist (Sample)

Facilitator Checklist for “It’s About Ability”

Session One

School/Class No: _____ Date: _____

Facilitator Name(s): _____

Start time: _____ Finish time: _____ No of students _____

Content Checklist

1. Welcome ☐

- Names and roles
- Show YouTube video clip: *Disability and Child Protection*
- Self introductions

2. Valuing Difference ☐

- Large group activity
- Large group discussion
- Show YouTube video clip: *Sesame Street – We Are All Earthlings*
- Small group discussion
- Energiser
- Definitions

3. Human Rights ☐

- Large group discussion
- Brainstorming

4. United Nations ☐

- Convention on the Rights of the Child
- Convention on the Rights of People with Disabilities
- Show YouTube video clip: *The Convention on the Rights of the Child*
- Questions
- Hand out journals for students to complete section on today’s session
- Hand out programme books

Resources

Participant Evaluation 1

YouTube with screen and speakers

Powerpoint: Quotes from 4 young people

Chart paper, markers and blutack
Slide of UN
Programme journals and handbooks

Session Notes (note any additional content or major deviation from set programme)

“Gems” of session and reminder of things to pursue next session

Please pass completed Facilitator Checklist to Programme Director

Thank you!

Appendix K

Programme Attendance Sheet (Sample)

Class 09 ATTENDANCE RECORD - Mrs Jane Smith

[illegible]

Class 09 ATTENDANCE RECORD - Mrs Jane Smith

[illegible]

Appendix L

Transmittal Letter

A note from your child's teacher

Dear Parent/Caregiver,

During the remainder of this year, your child will be learning about disability awareness in a new programme called "It's About Ability".

This programme will run for one term with weekly sessions of approximately two hours. "It's About Ability" aims to increase understanding about the rights of people with disabilities, inspire children to value diversity, and build attitudes that support social inclusion.

As part of the programme, your child will have the opportunity to be involved in a research study that will help evaluate "It's About Ability". Please see attached information sheet and consent form from the researcher. I hope you will support this project.

Teacher's Name _____

Appendix M

Standardised Instructions for Administration of Questionnaires

1. Before handing out questionnaire

Instructions to be read by the researcher to the students:

- a. Soon I will be handing out a questionnaire for each of you to complete.
- b. This questionnaire will help us understand more about you and your classmates before you start a new programme/now that you have completed the programme, “It’s About Ability”.
- c. If you decide that you no longer want to participate in the study, let me know, and I will not give you the questionnaire.
- d. All your answers will be confidential.
- e. All answers will be summarized as numbers and averaged.
- f. When you have the questionnaire, you may read the first page but do not start until I tell you.
- g. When I tell you to start, work quietly and when you are finished, please raise your hand and I will collect your questionnaire from you.
- h. If you make a mistake, cross it out, and circle your preferred answer.
- i. If there is any question that you do not wish to answer, you may skip it.
- j. If there are any words or statements that you do not understand, please raise your hand and I will assist you.

2. Immediately after handing out the questionnaire

Instructions to be read by the researcher to the students:

- a. Over the page is a list of statements.
- b. Please read each statement carefully and circle the answer that best explains your feelings about that statement.
- c. Start now

3. During completion of questionnaire

Should a student experience difficulty reading or comprehending any questionnaire item(s), they will be assisted by the researcher to ensure their understanding.

4. Following completion of questionnaire

All completed questionnaires are to be collected by the researcher and placed in an envelope, with the envelope then being sealed in front of the students.